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Aug. 1913

28653

THE  
JOURNAL OF HORTICULTURE,  
COTTAGE GARDENER,  
AND  
COUNTRY GENTLEMAN.

A CHRONICLE OF THE HOMESTEAD, POULTRY-YARD, APIARY, & DOVECOTE.

---

CONDUCTED BY

GEORGE W. JOHNSON, F.R.H.S., AND ROBERT HOGG, LL.D.

---

THE FRUIT AND KITCHEN GARDENS, by Mr. J. ROBINSON, Gardener to Viscount Holmesdale, M.P., Linton Park; and Mr. J. TAYLOR, The Gardens, Longleat.

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VOLUME XXIX., NEW SERIES.

VOL. LIV., OLD SERIES.

LONDON:

PUBLISHED- FOR THE PROPRIETORS, 171, FLEET STREET.

1875.

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**LONDON :**  
**PRINTED AT THE JOURNAL OF HORTICULTURE OFFICE,**  
**171, FLEET STREET.**

## TO OUR READERS.

— x —

A GLANCE at our past year, and a cheer towards the year we entered when this volume closed, have been contributed by two of our most welcome adjutants; so that a few sentences only are needed in addition.

To you who are especially devoted to the Garden we can promise an ample supply of able communications, and need add only the wish—

A gard'ner's new year to you : Due sunshine and rain ;  
No blight on your crops ; of rheumatics no pain.

To Poultry, Pigeon, and Cage Bird Fanciers we make a similar promise, for our staff is strong, and we wish

To all bird-lovers a happy new year,  
Few deaths 'mong the young, no eggs that are clear.

To you, Apiarians, the same promise applies, for here we have to be grateful for aid from the best skilled. So

A happy new year, Bee-men : much honey and good ;  
Stocks and swarms very strong, and not any foul brood.

Also Rabbit Fanciers and others who refer to our pages for information will find that we are always able to render satisfactory replies ; and this we are justified in saying, because we obtain them from men whom we know are sound in knowledge and judgment. To them, to you our readers, and to all our contributors we record our hearty thanks, for to you we owe our increased success, and enable us to say truly that we are proud of being

THE EDITORS.







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## WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 1-7, 1875.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.							
1	Tu	Birmingham Great Exhibition opens. Spalding Show	74.8	50.8	62.8	49 at 8	18 at 8	28 at 1	16 at 7	25	8 29	183
2	W	Geologists' Association at 8 P.M. (opens.	78.4	51.2	62.8	50 8 18	8 18 8	9 2	20 8	26	8 40	183
3	Th	Brookham (Rose), Southgate and Camden Park (West	74.0	50.2	62.1	50 8 17	8 17 8	16 8	20 9	27	8 51	184
4	Fri	6 SUNDAY AFTER TRINITY. [ Kent), Shows.	76.1	50.2	63.2	51 8 17	8 17 8	88 4	55 9	1	4 2	185
5	Sat	Entomological Society at 7 P.M.	77.1	50.2	63.7	52 8 16	8 16 8	6 6	18 10	2	4 18	186
6	Sun	Grantham Show opens.	76.0	50.8	63.4	53 8 16	8 16 8	83 7	85 10	3	4 28	187
7	Mon	Royal Horticultural Society—Cut Rose Show.	78.7	50.8	62.2	54 8 15	8 15 8	55 8	47 10	4	4 33	188

From observations taken near London during forty-three years, the average day temperature of the week is 75.0°; and its night temperature 50.5°.

## HALF AN HOUR AMONG THE TEA ROSES.



AMONG the many merits of Tea Roses and Tea-scented Noisettes is their suitableness for covering walls high or low, and spaces of a few square feet or of a wide expanse, very small plants that are only a few months old and a foot or two in height yielding both foliage and flowers of much excellence, and which are quite as admirable and useful in their way as the older and larger plants, or rather trees, bearing perchance many hundreds of blooms. A single glance tells the experienced eye what position a new sort requires, all of delicate and slender growth being admirably adapted for clothing with beauty the base of walls that are usually left bare by the rampant growth of more vigorous kinds, as well as more prominent and favourable positions.

I have a collection of upwards of fifty kinds of this charming section of the Rose family all growing against walls and buildings, and planted in soil prepared for them with great care. Under these favourable conditions most of them have thriven very well, and when jotting down their leading characteristics lately for my own future guidance it occurred to me that my notes might interest and assist others in forming a correct idea of the relative merits and value of the various kinds, not so much as exhibition flowers as for the greater intrinsic worth of beauty in the expanding flower buds and foliage—points which are, I think, of even greater importance, certainly of greater utility than the production of fine large flowers. Some stress is laid upon this matter because it appears to receive very little notice; in fact I am by no means certain that in the rage for fine flowers it is not almost lost sight of. What say the rosarians? Do they plead “not guilty,” and claim that all their “gems and jewels rare” are of such invariable excellence in this respect that official notice is uncalled for? Of course it must be granted that there is beauty in every leaf and bud; but it is undoubtedly beauty in degree—good, better, best, and I suppose no one will attempt to question the importance of some classification.

Large numbers of Roses are cut and sent to town during the season; and this is one, but only a secondary, reason why I value beautiful flower buds and foliage so highly, for it is upon the growing plant that they are undoubtedly most attractive, and the estimate of those kinds which I have now to give is not based upon the appearance of a single flower or truss, but upon that of one or more plants of each.

Taking them in the order in which they are entered in the note-book, first of all comes that fine old Rose

*Gloire de Dijon*, alike excellent in bud, flower, and foliage. There are several seedlings of it, most of them partaking of its robust habit and fine foliage, but of inferior merit in other respects.

*President* has large buds and flowers; loose, dull-looking, and worthless.

*Safrano*.—Excellent in bud, and is then most useful

No. 744.—Vol. XXIX., NEW SERIES.

for bouquets; but the expanded flowers are thin, ragged, and so unsightly that it ought never to occupy a prominent position.

*Marechal Niel*.—Objection is sometimes taken to this magnificent Rose because its flowers are pendant; if it were of a dwarf bushy habit the objection might hold good; but in such a vigorous climber it is a decided merit and not a blemish at all. A fine specimen of it which was planted about three years and half ago is now quite 20 feet high, and has had upwards of three hundred flowers open at one time this year. The effect of such a mass of pendant golden flowers was as fine as it was singular; and what is perhaps more important in the eyes of many, they met with even more admiration when cut than when suspended upon the plant high overhead. I have about a dozen plants of this Rose trained to walls of different aspects and in open borders, and have always found the flowers of a higher colour upon a south aspect than in any other position. Of a robust, free, vigorous growth, with flowers and foliage of the highest excellence, and very free-flowering, it may justly be termed an indispensable sort, finding as prominent a position in the select few of an amateur's garden as it does among the thousands of the largest growers.

*Homère*.—This is variable in colour, but is usually of a pale salmon at the base of the petals, deepening outwards to a deep pink. The edges of the petals are beautifully recurved. It is a charming, distinct, and most useful variety.

*Isabella Sprunt* has nice little delicate yellow buds, which are useful; the expanded flowers are worthless. The effect of different aspects is strikingly exemplified in a plant of this sort, which is trained to a buttress. Upon the north and east sides the growth is stunted and weak, with puny worthless flower buds; while upon the south side the growth, foliage, and flower buds are as vigorous and fine as could be wished.

*Belle de Bordeaux*.—A vigorous but shy-flowering kind, hardly worthy of a place.

*Reine de Portugal*.—Fine large buds of a coppery hue, which as they unfold their broad elegant petals assume a rich yellow tinge. A fine Rose with handsome foliage, but apt to be petal-bound.

*Boule d'Or*.—Fine pale-yellow buds, deepening in colour as they expand into equally fine flowers.

*Marie Sisley*.—Fine, large, pendant buds, of a lovely pale pink colour. Foliage good.

*Madame Ducher*.—This has large buds of the *Gloire de Dijon* type, but paler in colour. It is a second-rate Rose, of a somewhat loose straggling habit of growth.

*Abricoté*.—Delicate fawn-coloured buds, exquisite in form, and which expand into large and tolerably full flowers. The pendant habit of its flowers renders it a desirable kind for training upon high walls or buildings. It has handsome foliage, and is altogether a fine Rose.

*Madame Caelina Noirey*.—A valuable sort, with abundant large delicate pink flowers, handsome foliage, and of a remarkably compact growth.

*Devoniensis*.—Magnificent buds and flowers of a pale

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yellow shade of colour. The dwarf growth is clothed with handsome foliage. A fine Rose.

*Viscomtesse de Cazes*.—Useless for bouquets owing to the looseness of the flowers, but so rich in colour—a bright golden yellow—as to merit a place.

*Madame Levet*.—This is another kind with thin loose flowers of bad form. It is a free-blooming kind, but unworthy of wall space.

*Rubens*.—Buds of medium size, yellowish white, with a charming pink tinge; elegant recurved petals. A fine Rose, with handsome foliage.

*Madame Bravy*.—A delicate kind, of little merit.

*Hortensia*.—Another delicate kind, but with fine, large, rosy-pink flowers. An excellent variety.

*Triomphe de Luxembourg*.—This has rose-coloured flowers, tinged with copper. The buds are good. Growth of medium vigour.

*Narcisse*.—Flowers white, with a charming yellow tinge. The exquisite form and delicate colour of its buds render this a most desirable kind.

*Madame Azélie Imbert*.—Pretty little cream-coloured buds, which are very useful; but like its parent *Madame Falcot*, its expanded flowers are worthless.

*Souvenir d'un Ami*.—This fine old Rose still holds its own, and is worthy of a prominent position. It has beautiful flowers, full, and of a charming pink colour.

*Madame Margottin*.—The yellow flower buds of this kind are good, and the foliage handsome, but the expanded flowers are worthless.

*Madame Falcot*.—Buds of exquisite form of a deep fawn colour. Somewhat resembling *Safrano*, but infinitely superior to it.

*Madame Hippolyte Jamain*.—A very free-flowering kind, but unworthy of wall space.

*Monsieur Furtado*.—Pretty flower buds of a delicate yellow shade.

*Madame Melanie Willermoz*.—Large creamy white flowers tinged with pink of the *Gloire de Dijon* type. It is an excellent kind, vigorous in growth and very free-flowering. A fine Rose.

*Goubault*.—A vigorous free-flowering, deep-flesh-coloured old Rose, valuable for its buds, which are fine in form and distinct in colour.

*Niphotos*.—An excellent large white kind; the flowers are pendant, full, and well formed.

*Jean Pernet*.—This is an excellent variety, bearing well-formed flowers, full, and of a delicate pleasing shade of yellow. The flower buds are very useful.

*Sombreuil*.—A white kind with a delicate pink tinge, very good and well-shaped flowers, of vigorous growth, with fine foliage, and excellent in every respect.

*Duc de Magenta*.—A free-flowering kind, with nice useful buds and flowers of a novel yellow and pink tinge.

*Lamarque à fleurs jaunes*.—The opening buds of this variety reveal a charming interior of rich bright yellow. They are exquisite in form, yet they, like so many others, expand into comparatively worthless flowers. It has handsome foliage, and is quite indispensable for its buds, which are really unique.

*Comte de Paris* has pretty pale pink flowers. The buds are useful.

*Perte de Lyon*.—This is so delicate with me that I am quite unable to form an estimate of its worth. I shall be glad to learn more about it from others.

*Montplaisir*.—This is another of the *Gloire de Dijon* strain, having large flowers, but wanting delicacy and refinement both in the form and texture of its flowers.

*Belle Lyonnaise* is also a seedling of the prolific *Gloire de Dijon*. Its flowers, of a deep canary yellow, are full and well-formed.

*Belle Maconnaise*.—The flowers of this kind are so decidedly inferior in every respect that I shall discard it.

*Adrienne Christophe*.—A novel kind, with very high-coloured flowers of a rich coppery yellow, and with a pink centre. It is worthy of a place.

*Bouton d'Or*.—This has charming little bright yellow flower buds, which are very useful. It is a valuable dwarf-growing kind.

*Victor Pulliat*.—The flowers of this are of the most paltry description—loose, ragged, and thin; they are without a single redeeming point even under the best culture and in a warm sheltered position.

*Climbing Devoniensis*.—This is a splendid variety in every

respect. It is wonderfully vigorous, bearing its fine flowers of the true *Devoniensis* type most abundantly. The shoots of a small plant which was planted against a 10-feet wall between three and four years ago reached the top so quickly, and the entire plant was so vigorous, that it was transplanted to the south front of a building about 50 feet high; it has now attained a height of about 20 feet, and will probably cover the entire space allotted to it in course of two or three years more.

*Triomphe de Rennes*.—This has pretty little flowers of a delicate yellow shade, but is unworthy of a prominent position.

*Solfaterre*.—This fine old Rose requires a considerable share of wall-space to develop its full excellence. Its large, full, and well-formed flowers are of a delicate and most charming shade of yellow.—EDWARD LUCKHURST.

## BEES AND COTONEASTER MICROPHYLLA.

THOUGH not an apiarian I confess to be interested in the hive bee. I know of bees only outside their hives—nay, those I know now are not in hives, but have their domicile in the roof of a house. There are two colonies of them, one of very many years' standing, and the other came from a neighbouring apiary three years ago. The new comers sought entrance to the roof by the same opening as the old colony had; but though mighty in numbers they had to be content to take to the north side of the roof, the old one having an entrance at the southern side. Whether they fought for possession of the entire roof or location is not known, but that the new comers were satisfied may be inferred from the fact that they were very fractious for some days before they settled down, and until the old colony had cast off a swarm. What made me notice them particularly were their coming in great numbers and flying round the eaves of my cottage as if in quest of new quarters. Between it and their quarters the creatures maintained a string or line along some railings, reconnoitring slowly as they advanced from, but were less guarded or sped them swifter in returning to, quarters. So far as the railings went the bees followed them, and from where the railings turned at right angles they took a straight flight to and fro to the roof. Pugnacious were they, making attacks on all approaching near their road of march. They searched the roof thoroughly all round, and finally returned to head quarters, where they have remained in quiet ever since, not casting a swarm that I know of. Whether the new comers are responsible for a swarm that found its way to the roof of a lodge about half a mile distant I shall not speculate upon, or whether they are the instigators of the spies which have lately been seen busy round the eaves of the said lodge, and intend invasion at a not distant date, may not be as clearly shown as to carry with it the force of conviction; but that runaway bees know beforehand whither they are bound at the outset seems clear from their straight flight to the settlement. It is not a hovering around the old habitation, and settling upon branches near, but a clear case of mind made-up beforehand, requiring only at the juncture to be acted on.

The finding of runaway swarms on branches of trees is no proof that search has not been made for a domicile before the exodus, for it may be the queen is unequal to the task, and settles where she does of fatigue, surrounded by her clamorous subjects. Is it proven that a swarm so left would perish, and not after a halt renew the journey? Failing this, would the bees not return to whence they came out, minus it may be the queen? And what would be the good of continuing the journey if the essential of their existence were not capable of reaching the destination marked for the new colony? It would be a mercy to dispatch the queen and return to their old friends, or both may return together. Anywise it seems to me (excuse my knowledge of bee-ology) contrary to the philosophy of nature and instinct for a swarm of bees to be driven out or of its own accord leave a hive, not knowing whither it is bound, or without means instinctive of selecting one. Can it be that the "cultivated" bee is so accustomed to have its habitation provided as to lose the instinct peculiar to it in a wild state in providing itself with a domicile? and are not runaway bees evidence of the full returning of their instinctive power?—a return from the cultivated to the natural state.

Bees, runaway or home, how fond they are of the flowers of the *Cotoneaster microphylla*. Every flower seems to be possessed by a bee, and humble bees are also busy in sharing in the sweets. Upon no shrub or plant have I noticed the bees so busy as upon the flowers of this. *Salvia nemorosa* and *Heather* (*Calluna vulgaris*) are no exceptions, but they flower



later; *Nepeta Mussini*, an effective lavender-mauve flower plant for borders, being a good foraging ground for bees.

The *Cotoneaster* is a quick-growing evergreen shrub, and though the leaves are small the growth is so dense and close as to give a carpet of deep shining green to rock, and rugged ground, whilst for walls it clothes them in a close green mantle, be they old or new, and for low walls up to those of a dozen feet or more it is, for a close covering, perhaps matchless. The flowers are white, and only from their number are significant of the following of the bright red berries, appearing to great advantage—coral beads upon the brightest and deepest of emerald setting; against the walls of a church it is a fitting subject, according well at the festive season with the decorated interior.

Rugged and sloping banks after the plants become established are covered by it speedily and effectively, and though it has been recommended as good for growing under trees, my experience appears to point to only partial success. It is not either suited to a position very bleak or exposed, as the growths are cut by severe weather, especially if the ground be rich and the growths consequently strong and unripe. With moderate shelter, however, it succeeds admirably.

*C. buxifolia* has rounder leaves, is of more glaucous aspect, and is not nearly so good or free-growing as *C. microphylla*; and *C. Simmonsi*, which was vaunted upon its production as a berry-bearing shrub, is certainly very free in growth, of stiff and erect habit, of no use whatever as an evergreen covering for walls, being at best only a semi-evergreen, losing a majority of its leaves in winter; but it bears a profusion of bright orange-red berries, which are very pretty and useful for decorative purposes at the dreary season.—G. ABBEY.

## ALEXANDRA PALACE ROSE SHOW.

JUNE 24TH.

A PERIOD of showery weather followed by a week of dull yet dry days has aided the production of splendid Roses. The rains supported the plants, and the cloudy days intensified the colours of the flowers, and a perfect show-day enabled them to be set-up in large numbers, and many of them of a high order of merit. The first Alexandra Show was great not only in name but in fact. The great Rose champions entered the lists and marshalled their forces in such numbers as almost to overtax the energies of the managers, but by dint of hard work the arrangements were just completed in time for the public inspection. It is indeed little short of a marvel, considering the distance the collections have to be brought, and the utter dependence on trains not always punctual, that flowers can be staged in such numbers and freshness as are found at any exhibition of note. It is only by untiring devotion and unremitting work that an exhibition such as this can be perfected, and the Rose-loving world should recognise the efforts and appreciate the labours to all who contribute to a successful display.

A comprehensive schedule and liberal prizes met a general response of rosarians. At this first Show thousands of blooms were staged, and thousands of visitors were attracted, yet on the first day the numbers were more select than numerous.

As is to be expected in such a large number, many blooms were small and indifferent, but still more were exceedingly fine. As a rule the collections were too fully expanded, and had just passed the prime of the full gloss and freshness of youth. Some of the exhibitors were sensible of this, and wisely kept their blooms covered until the last moment. The Judges were sensible of it too, and did not always award primary honours to the largest blooms, but evidently and justly gave full weight to freshness, colour, and uniformity. Roses are never so beautiful as just before they are fully expanded, and mere size does not, neither ought it to, carry the palm. We note this because the weak point of the Exhibition—and it is a common if not a growing weakness—was that a majority of the blooms were too far advanced. Two-days shows have frequently a ragged appearance on the second day, by paying undue honour to mere size of blooms on the first. The correctness of the judgment will, in most instances, in this Show, we think, be as clearly seen on the second day as at the time the awards were made, and that is no mean proof that quality has been recognised as well as size.

In glancing at the classes we shall not append a long string of names, as it is only repeating John Hopper, Charles Lefebvre, Mme. La Baronne de Rothschild, Alfred Colomb, La France, &c., over again. Such Roses are always good, and are constant and sterling varieties indispensable in all collections. In the six exhibits in the nurserymen's class for seventy-two single trusses the above were all represented in fine order. Messrs. Paul and Son, Cheshunt, secured first honours with an even lot, combining size, substance, and colour. Amongst them Duke of Connaught, Duc de Rohan, Eugénie Verdier, and Marie Bau-

mann shone pre-eminent. Messrs. Cranston & Mayos were second with equally large blooms of nearly the same varieties, but not quite so bright and fresh as the Cheshunt Roses. Mr. Cant, Colchester, was third with smaller but particularly fresh blooms. In this collection Emile Hausburgh was lovely. Than this no more charming flower was in the Exhibition. Louis Van Houtte was also intensely coloured, and Niphetos was shown in faultless beauty. Mr. Turner was placed fourth. An extra prize was awarded to Mr. Keynes, Salisbury, for a collection of considerable merit. In this class the bloom were the finest in the Exhibition. More imposing, however, was the following class for forty-eight varieties, of each three trusses (five competitors). Here Mr. Turner, Slough, was in the ascendant, securing first honours with blooms nearly equal to those in class 1. Maréchal Niel, Maurice Bernardin, Madame Eugénie Verdier, and Etienne Levat were amongst the best. Paul & Son were second with La France (splendid), Senateur Vaisse (very bright), Charles Rouillard, François Michelin, &c.; Mr. Keynes being third, his Devonensis and Marquise de Castellane being the most effective. Mr. Cant was fourth; an extra going to Messrs. Cranston & Mayos for blooms only a shade inferior to those of their great rivals.

In the class for twenty-four triplets of Hybrid Perpetuals were ten competitors. It was a massive display, Messrs. Paul & Son having the premier place with blooms almost perfect in form and colour, but not very large. Madame Lacharme was here very good; and very fine were La Ville de St. Denis, Louis Van Houtte, Marie Baumann, and Madame Hippolyte Jamain. Mr. Prince, Oxford, was second with blooms of great substance, Messrs. Cranston & Mayos being third, and Mr. Turner fourth. In the next class, for twenty-four single blooms, eight fine boxes were staged, Mr. Keynes winning with a level lot of great excellence, Messrs. Cranston & Mayos and Mr. Prince following in the order named; equal fourth being awarded to Messrs. Davison and Whitten, Hereford, and Mr. Cant. The best blooms in these collections, besides the old standards, were Etienne Levat, Mad. Hippolyte Jamain, Exposition de Brie, Catherine Mermet, Xavier Olibo, Dr. Andry, Fisher Holmes, Marie Baumann, Marquise de Mortemart, Princess Beatrice, Horace Vernet, Louis Van Houtte, Marguerite de St. Amand, and François Michelin.

In the nurserymen's class for Tea-scented and Noisette Roses were six competitors, and some charming flowers were staged; Messrs. Paul & Son winning a close race, followed by Mr. Prince and Mr. Cant in the order named, Messrs. Davison & Whitten being fourth; Mr. Keynes having an extra prize. In the corresponding class for amateurs the Rev. J. B. M. Camm was first, followed by Captain Christy, T. Laxton, Esq., Stamford, and Mr. Pullen, gardener to E. Smith, Esq., Colney Hatch. These charming Roses afforded a refreshing relief to the Hybrid Perpetual classes, and had many admirers. The best were Maréchal Niel, Anna Ollivier, Madame Willermos, Niphetos, Catherine Mermet, Devonensis, Souvenir de Paul Neron, Gloire de Bordeaux, Marie Van Houtte, Belle Lyonnaise, Madame Capucine, Alba Rosea, Souvenir d'un Ami, Souvenir d'Elise, Celine Forestier, Adam, President, Mr. Kemble, Mons. Furtado, Josephine Malton, Rêve d'Or, and Homère.

In the remainder of the amateurs' classes was good competition. For forty-eight single trusses Mr. Baker, Heavitree, Exeter, won the first honours with a very fine collection. Some of the best were Marie Van Houtte, Marie Baumann, Annie Laxton, François Michelin, Duchesse de Caylus, Beauty of Waltham, and Centifolia Rosea. The other awards going to Miss Penrice, Norwich; Mr. Rushmore, gardener to Sir C. Rowley, Bart., Tending Hall, Colchester, and Mr. Laxton. For thirty-six blooms eleven competed, Mr. Baker being again in the ascendant; Mr. Curtis, Chatteris, Mr. Cavell, Oxford, and Mr. Mayo following in the order named; Mr. Camm having an extra prize. In the class for twenty-four blooms seventeen competed, and the awards were made in the following order—Mr. Atkinson, Brentwood; Mr. A. J. Bloxham, Oxford; Mr. T. Jowitt, Hereford; Mr. Curtis and Mr. Baker, equal fourth; and an extra to Mr. Mayo. In these collections many inferior blooms were placed, but the winning stands contained fine examples of standard varieties; Beauty of Waltham, Henri Ledechaux, Paul Verdier, Marquise de Castellane, Annie Laxton, and Etienne Levat showing to advantage. In the class for twelve were eighteen collections of superior quality, Mr. Baker being placed first; Rev. A. Chales, Reigate, and Mr. Taylor, Oxford, equal second; Mr. Smallbones third; Mr. Gravely fourth; an extra award being given to Mr. Mayo.

The open classes were specially interesting, and brought out some fine Roses. For twelve blooms of 1873, 1874, or 1875 Mr. Turner secured the first place. He had very fine examples of Beauty of Slough, Dean of Windsor, Caroline Kuster, Mr. Baker, Capitaine Christy, J. S. Mill, &c.; second honours going to Messrs. Paul & Son, who had amongst their finest Duchess of Edinburgh, Mlle. Marie Finger, Reynolds Hole, and Etienne Levat. Mr. Cant had third place, his best being William Hayes, Etienne Dupuy, Madame Lacharme, and Antoine Mouton of a very pleasing lavender tint; Mr. Keynes being placed fourth. For

six trusses of any Rose of 1873, 1874, or 1875 Messrs. Cranston and Sons won with Sir Garnet Wolseley. It is one of the best Roses ever set up, rich, deep, full, and grand. Messrs. Paul and Son had second place with their distinct and good variety Cheshunt Hybrid, followed by Mr. Corp, Oxford, and Messrs. Davison & Whitten with Capitaine Christie. For eighteen trusses of English-raised Roses in commerce Mr. Turner and Messrs. Paul & Son were first and second respectively. The best were John Hopper, Rev. J. B. M. Camm, Miss Hassard, Wilson Saunders, and Lord Napier. In the open class for twelve single blooms Mr. Walker, Thame, Oxon, won with the best box of blooms in the Exhibition; Mr. Keynes being second, Mr. Turner third, and Messrs. Corp and Prince equal fourth.

We now come to the classes for twelve blooms each of nine special varieties, which resulted in a rich display; and it is likely that this mode of showing popular Roses will become more general. It would have been complete if a champion prize had been added to the best box in the Show. Of Alfred Colomb four collections were entered, the honours being apportioned to Mr. Turner, Mr. Baker, and Messrs. Paul & Son respectively. For Duke of Edinburgh, Messrs. Paul & Son and Mr. Turner shared the awards. For Mme. La Baronne de Rothschild (splendid blooms), Mr. Baker and Mr. Prince were winners. For La France, Mr. Baker was again first, closely followed by Messrs. Paul & Son with grand collections. For Marie Baumann, Mr. Curtis and Mr. Baker were placed in the order named, with handsome stands. For Maréchal Niel, Mr. Cant was first and Mr. Walker second. For Princess Beatrice, Mr. House, Peterborough, and Messrs. Paul & Son. For Edward Morren, Mr. House and Mr. Cant; and for Madame Lacharme, Mr. Cant was first and Messrs. Paul & Son second.

What shall we say of this controversial Rose? "D., Deal," is right in calling it good, and Mr. Camm is right in calling it indifferent. How can this be? As a white Rose, when well finished it is the best of all. Good examples of it were shown, but many more were indifferent both in size, form, and purity of colour, and the plants exhibited were infested with mildew. It is good when well grown; so "D., Deal," is right, but is evidently anything but a constant and good grower, which affords Mr. Camm room for complaint; besides it is scentless, or worse, and hence that rosarian cannot esteem it of the highest merit. Madame Lacharme must be grown, and those who produce perfect blooms will have reason to be proud of them. That is the teaching of the Alexandra Show to an unprejudiced and impartial mind.

For fifty pot Roses Messrs. Paul & Son had the post of honour, Mr. Turner's plants being nearly as good. For standards there was no entry. For vases of Roses Miss Money of the Alexandra Palace had the first prize; Mr. Gardiner, gardener to Lady Garnier, being second. Certificates were awarded to Mr. Laxton for Mrs. Laxton, a beautiful Rose with the form of Marie Baumann and the colour of Sénateur Vaisse; and for Emily Laxton of the type of Marquise de Castellane, but richer in colour. Mr. Laxton also exhibited Dr. Hogg, a rich claret, with good substance. Mr. Turner had certificates for Mrs. Baker, a flat-petalled velvety Rose; and Oxonian, a globular flower of great substance, a deep rose-coloured Princess Beatrice. Mr. W. Paul exhibited new seedling Roses of great promise.

Mr. Turner had certificates for finely-laced Pinks and plants of new Pelargoniums. A batch of Gloxinias of merit were exhibited by the Alexandra Palace Company, four of which were certificated. Certificates were also awarded to Mr. Ware for a double Sweet William; and to Messrs. Barron & Son for Cupressus Lawsoniana elegantissima and Retinospora tetragona aurea. Miss Williams, Holloway, had elegantly arranged groups of flowers. Mr. Williams had first prize for a large collection of plants, and Mr. Turner second; and the hall was made gay with large and well-filled vases of flowering plants and Ferns.

Altogether the first Rose Show was a successful one, and with the experience it has afforded is no doubt but the precursor of others still better, especially in some details of arrangement which the Exhibition would suggest to the intelligence of the managers.

### ROYAL HORTICULTURAL SOCIETY.

THE following requisition signed by more than twelve Fellows of the Royal Horticultural Society having been presented to the Council, in accordance with the bye-laws, a special General Meeting is hereby called for Thursday, July 8th, at 8 o'clock p.m., in the Council-room of the Society, at South Kensington.—ROBERT HOOG, *Secretary*.

"We, the undersigned Fellows of the Royal Horticultural Society, respectfully request the Council of the said Society to summon a general meeting of the Fellows with as little delay as possible, to consider the conduct of Lord Bury, Sir Coutts Lindsay, Messrs. Bonamy Dobree and Burnley Hume, in reference to the non-completion of their resignations, and other

matters that it may be deemed necessary to introduce to the notice of the Meeting under the head of acts and doings of the afore-mentioned gentlemen during and in connection with their membership of the Council.

"Also for the purpose of conferring with the Council as to the steps that should be taken to extricate the Society from the difficulties under which it is placed from the obstructive position assumed by Lord Bury, Sir Coutts Lindsay, Messrs. Bonamy Dobree and Burnley Hume, in the non-completion of their resignations."

### CRYSTAL PALACE ROSE SHOW.

JUNE 28TH.

No sooner is one great tournament over on the north of the metropolis than another, if not greater, yet in most respects better, is arranged—where so many fine gatherings have been seen before—in the great Palace at Sydenham. Rose shows are unlike plant exhibitions in one important respect (although there is necessarily a great similarity in the nature of the exhibits), that the identical prize-winners are not transferred from one place to another in precisely the same state and with exactly the same results. If in the case of Roses we have just the same exhibitors and much the same order of success, we have undoubtedly different flowers from those which have been previously seen and described.

The two great gatherings described this week are distinct in the essential points of quality of blooms and their order of arrangement. It is but just to note that the Crystal Palace arrangements have fairly carried the palm for efficiency, and it is serviceable to others to know wherein this efficiency consisted. That blooms are produced in better condition at one place than another is beyond the pale of official management; but not so the arrangements in conducting the show. In the parallel rows of boxes arranged under the awning in the central transept at Sydenham, the Roses showed to greater advantage than in the widely separated and lofty aisles of the Concert Hall at Muswell Hill. They were arranged with more smoothness, judged with more ease, and enjoyed with more comfort at the Crystal Palace than at the Alexandra Palace; and further, the system is altogether simpler and better to have each exhibitor represented by name on his card rather than by number. These cards at Sydenham are simply turned face downwards, and the class number written at the back, and are not turned up until the decision is arrived at, and for the ready printed slips of "first," "second," and "third prizes," to be pasted on their face. For celerity, fairness, simplicity, and efficiency the plan is commendable. If honour exists in any body of men it is in the judges of Roses, and any special precautions to ensure perfect justice being done is quite needless. It may be useful to mention this plan, which works so perfectly, as being preferable to the blind ticketing of the collections with numbers alone, and for the corresponding names of which the public must wait with the impatience that under the circumstances is inevitable.

But to the Show. It was one of the largest ever held, and one of the best. The collections were arranged on two tables, the boxes facing each side. If in a single line they would have reached 1170 yards, or nearly two-thirds of a mile. In quality the blooms were generally very superior; to lose in such a contest was no dishonour, but to win was indeed a triumph. We have seen larger blooms, but for colour and freshness they have never, perhaps, been excelled. The dull morning retarding their expansion was an advantage, and the rich appearance of such blooms over a large collection fully expanded was very manifest. We name a very few of the best in the classes on the principle that the shorter the roll of names the more select is the list of varieties. In the nurserymen's class for seventy-two varieties of single blooms were six competitors, each staging collections of sterling merit. "What! Messrs. Paul & Son first again?" was the greeting. Yes, the Cheshunt Roses were the largest, and also equal in colour and finish to those of their great rivals, and hence they won. A very noteworthy Rose in this collection was John Bright, not, however, clothed in the sober garb of the quakers, but rather in the brilliant colour of the life-guardsmen. It is a rich and glowing variety. In contrast was a bloom of rare excellence of Madame Rivers, and of equal high quality were Madame G. Schwartz, Duchesse de Morny, Alfred Colomb (very brilliant), Marguerite de St. Amand, and Mons. Noman. Mr. Turner, Slough, was second, Mr. Cant third; an extra third going to Messrs. Cranston & Mayes. The best blooms were Horace Vernet, Duchesse de Caylus, Dr. Andry, Xavier Olibo, Duke of Wellington, Annie Laxton, Madame Bellon, Madame Vidot, Elie Morel, Sénateur Vaisse, Océide de Chabillant, Souvenir d'Elise, Dupuy-Jamain, Marquise de Gibot, Niphetos (splendidly shown in the collection), Charles Lefebvre, François Michelon, and Marie Baumann; and in Mr. Keynes's collection a very good Madame Lacharme. The above collections were nearly equal in point of merit, but the beautiful foliage of Mr. Turner's Roses turned the scale in his favour.

For three trusses of each of forty-eight varieties were also six fine collections; Mr. Cant having first honours with a grand lot of blooms; Messrs. Paul & Son and Mr. Keynes being equal second, and Mr. Turner third. The most perfect triplets were La France, Mlle. Marie Finger, Mlle. Marie Cointet, Ferdinand de Lesseps, Louis Van Houtte, Madame Hippolyte Jamin, Madame Sertot, Niphotos, Etienne Levat, Princess Beatrice, Madame C. Wood, La Fontaine, Dr. Andry, Marie Baumann, Louisa Wood, François Louvat, J. S. Mill, Victor Verdier, Marquise de Castellane, Rêve d'Or, Abel Grand, Mad. Lacharme very good, and Lamarque in splendid form. In the class for twenty-four varieties of three trusses of each were six excellent collections, Mr. Prince, Oxford, winning with blooms of fine substance of petal and in perfect form and colour, the seedling Briar adding one more to a long list of honours. Mr. Keynes was second, and Mr. Bennett of Stapleford third. Mr. Prince had amongst his list Madame Lacharme (stick to it "D., Deal"), François Michelon, Marquise de Castellane, Etienne Levat, Charles Lefebvre, Madame G. Schwartz, and Marie Baumann. Mr. Cant also set up a grand lot, his Duke of Wellington, Duchesse de Morny, and Niphotos being the best of these fine varieties in the Exhibition. The class for twenty-four single blooms brought out fine collections, amongst them were superior blooms of the varieties above named. Mr. Cooling, Broad Street, Bath, securing the post of honour; Mr. J. Walters, Mount Radnor Nursery, Exeter, being placed second; and Mr. Walker, Thame, and Mr. Corp, Oxford, equal third, an extra third being awarded to Mr. Coppin, Shirley, Croydon.

In the amateurs' classes was spirited competition, and many grand flowers were set up. For forty-eight varieties, single trusses, Mr. Baker, Heavitree, distancing all comers. The Heavitree Roses must have the benefit of heavy soil, for they are heavy blooms of splendid finish. Finer examples of Marie Van Houtte (lovely), Devonensis, Prince Camille Bernardin, Dr. Andry, Alfred Colomb, Annie Wood, Souvenir d'Elise Vardon, Duchesse de Caylus, Exposition de Brie, Louis Van Houtte, and Devienne Lamy have seldom been seen. Mr. R. Draycott, gardener to Sir C. Cunard, Bart., Hallaton Hall, Leicester, was second; Mr. W. Nichol, gardener to J. H. Powell, Esq., Drinkstone Park, Bury St. Edmunds, third; Mr. Pearce, gardener to Prof. Adams, The Observatory, Cambridge, and the Rev. T. H. Gould, Mortimer Vicarage, Reading, having extra awards. There were ten competitors, the winning stands being highly creditable to the growers, but in the rest were many small blooms. For thirty-six single blooms fifteen competed, Mr. Baker being again first with perfect blooms; Mr. J. Mayo, Oxford, being second; Mr. Draycott third; an extra award being awarded Mr. J. Davis, Wilton, Salisbury. Mr. Baker had a charming Marie Van Houtte; Lord Macaulay and Prince de Portia were especially brilliant, and Eugénie Verdier, Louis Van Houtte, and Etienne Levat being very fine. Mr. Robson, Sunningdale, Torquay, staged an admirable collection of fresh handsome blooms. For twenty-four single blooms no less than twenty-three competed. The flowers were perhaps generally small, but beautifully fresh and well coloured. They embraced as the best the varieties above named. The awards were given in the following order:—Mr. Baker, Mr. Atkinson, Brentwood, and Mr. J. C. Quennell, Brentwood; extra thirds being awarded Mr. Nichol, gardener to F. H. Powell, Esq., Drinkstone Park, Bury St. Edmunds, and Mr. L. Curtis, Chatteris. For twelve blooms were staged eighteen very fine collections, Miss Anne Lloyd, Exeter, being placed first; Mr. Smallbones, Chatteris, second; Mr. Atkins, Halstead Place, Sevenoaks, and Mr. Cavell, Bardwell Villa, Oxford, equal third; extra awards being made to Mr. John Tranter, Upper Assenden, Henley-on-Thames, and Mr. G. P. Charter, Brentwood. As a rule the blooms in this class were very superior, the whole of the exhibitors contributing well.

The open classes for new Roses always possess primary interest. For twelve blooms of any new variety of 1878 there were six competitors, Mr. Bennett, Stapleford, achieving the post of honour with a grand collection of charming blooms of Mlle. Marie Cointet. These had size, form, colour, and freshness; Paul & Son being second with rich blooms of their distinct and valuable Rose Oshesunt Hybrid; Mr. Turner having third place, also with the same variety. Two collections of Madame Lacharme competed, but they did not merit any award. This is a Rose which no one can afford to exclude from their collections, although as a rule it was exhibited flimsy in the petals, and quite half of the blooms were slightly tinged. It probably requires a vigorous stock. The best bloom in the Show, and it was not perfect, was in Mr. Prince's collection, and grown on the seedling Briar.

In Class 10, for twenty-four varieties, single blooms, of 1872 and 1878, were collections of great merit. Messrs. Paul & Son won the premier award in this class, the best being Emile Dupuy, John Bright, fiery; Duke of Connaught, very rich; François Courtin, Emily Laxton, Mlle. Marie Finger, Thos. Mills, Empress of India, Madame Lacharme, good bloom; Capitaine Christy, Kleber, Peach Blossom, Etienne Levat,

Claude Levat, Madame Dumaine, and Maréchal MacMahon. Mr. John Durbin, English Coombe Rosery, Bath, was second; and Mr. Keynes third.

Class 11, for twelve blooms of any variety of Rose, brought out a rich display of standard sorts. The premier award was worthily won by Mr. Bennett, Stapleford, with Mlle. Marie Cointet. This is a grand Rose, set up in fine style. It is of full size, with shell-like imbricated petals of rosy-peach colour, with a fine satiny gloss suffusing every part of the blooms. It is a Rose of undeniable excellence, and will enrich the most select collection. An extra first prize was awarded to Mr. Cant for massive blooms of Souvenir d'Elise. Mr. Mobsby, gardener, Colewood House, Sussex, and Mr. Baker, Heavitree, were placed equal second with Maréchal Niel and Mme. La Baronne de Rothschild respectively; Mr. Prince, Oxford, being placed third with Marquise de Castellane; an extra third being awarded to Mr. Turner, Slough, for Marie Baumann. The above were very superior collections, and in the same class Horace Vernet, Madame C. Wood, Abbé Bramet, Beauty of Waltham, John Hopper, Charles Lefebvre, François Michelon, and Marguerite de St. Amand were worthy associates. In this class were twenty-three competitors.

The awards for yellow Roses went in the following order: To Messrs. Paul & Son, Mr. Cant, and Mr. Walker. They were generally too much expanded, excepting Triomphe de Rennes and Boule d'Or, and these were in a beautiful half-open state. The rest were Maréchal Niel, Adrienne Christophle, Gloire de Dijon, and Céline Forestier.

For the best-arranged vase or epergne Miss Alice Hyder, St. Mary's Cray, was placed first. It was a simple graceful combination of Roses, Campanulas, and Ferns. Perhaps equally beautiful but more flowery was the one from Mr. Soder, gardener to O. Hanbury, Esq., Weald Hall, which had the second prize; Mr. Chard, Clarendon Park, being placed third with a vase too highly coloured. For Fern cases furnished, Messrs. Dick Radcliffe & Co., 129, High Holborn, were first; Mr. W. O. Garford, Springfield Nursery, Wandsworth Road, having the second place. The third prize was withheld.

In the classes for table decorations was considerable competition. In the open class Mr. Buster, St. Mary's Cray, was placed first; Mrs. W. Seale, London Road, Sevenoaks, second; and Mr. James Hudson, Champion Hill, Dulwich, third. Mr. Buster's table contained five tall glass vases filled principally with Grasses, flowers being very sparingly used. It was light, cool, and free. Mrs. Seale's was more gay, and by many considered the most beautiful; Mr. Hudson's being too heavy. The Judges have given their verdict in favour of elegance and grace as against highly-coloured embellishment, and we think thereby they have judged rightly. In the amateurs' class Mr. Hudson was first; he had as centres three Palms, with bases of flowers. Mr. Soder, gardener to O. Hanbury, Esq., being second with elegantly-arranged vases; Mr. Chard being third with Palms and flowers too heavily grouped. In the ladies' class Mrs. Seale was first, Mrs. Sarah Hudson second, and Miss Edith Blair, 50, Upper Bedford Place, London, third. In these decorations blue flowers predominated, which for daylight dinners are permissible, but for gaslight objectionable. The flowers consisted mainly of Campanulas, Water Lilies, and Cactuses. Most of the work in these classes was overdone.

For wedding bouquets Mr. Wood, High Street, Sydenham, was first with far the best bouquet in the Exhibition. It was composed of white Odontogloss, Roses, Utricularias, and Ferns, with a central spray of Spiræa japonica. Mr. Hepburn, Crystal Palace, was second. For opera bouquets Mr. Hepburn was first and Mr. Hudson second. For button-hole bouquets Mr. Hepburn was first with a yellow Rose bud, a sprig of Bouvardia, and Ferns; Mr. Burley, Brentwood, having the second award.

In the miscellaneous class prizes were awarded to Mr. Hooper, Vine Nursery, Bath, for Pyrethrums, Pansies, and Pinks; to Mr. Hepburn for a collection of button-hole bouquets; and to Mr. Corp, Oxford, for charming boxes of Tea-scented Roses. First-class certificates were awarded to the following:—Mr. John Durbin for seedling Rose Lady Mary Keith, Mr. Laxton for Mrs. Laxton and Lady Isabel Cecil, Messrs. Paul & Son, Cheshunt, for Duke of Connaught and John Bright, Mr. Postans for an unnamed seedling, and Mr. Turner for seedling Rose Oxonian and seedling Pink Bolard.

Messrs. Carter & Co. exhibited highly coloured Coleuses, the best being Duchess of Edinburgh, Mandarin, and The Shah—a trio of considerable value. Mr. Thompson, of the Crystal Palace Company, furnished attractive decorative plants and cut blooms in fifty varieties of Dianthus chinensis vars. Heddewigigil and laciniatus from seed supplied by Messrs. Sutton & Sons: these were of fine quality and remarkable richness, and greatly admired. The Exhibition was good and admirably conducted, and the Palace grounds are now attractive and in a high state of keeping.

LATE APPLES.—One of your correspondents inquired about late-keeping Apples. Since I have commenced writing I have

been to the cellar and brought up my last; they are the Sussex Duck's Bill, or Winter Queening, a very good Apple both to cook and eat. They are of medium size.—G. C.

### NEW DISEASE OF POTATOES.

I SEE in your Journal communications, or warnings, of a new Potato disease. I am sorry to say that it has appeared in this district, as in my own cottage garden I have it, but mine are Paterson's Victorias. They are affected exactly as the Rev. Mr. Berkeley says, and I have been told of others in the same way, and I am afraid that if it grows worse there will be no Potatoes where it is at all, whereas in other years there have been abundant crops.—G. C.

I WIND Early Rose to have nearly escaped; perhaps one haulm in a dozen gone, but the rest have a somewhat suspicious appearance on the leaf—dark yellow spots, which appear to increase, otherwise the haulm looks healthy. Bresee's Prolific is very bad, but seems to have been attacked at a later stage than you speak of at Chiswick. When the haulm had become more than half grown the leaves assumed a spotted burnt appearance, and are gradually leaving bare poles. These were planted early (beginning of March). Do you think that makes the difference? The seed was cut—a plan I am much against, but it was mostly composed of what Mr. Fenn styles "whoppers," but they were allowed to dry before planting.—O.

I HAVE grown the American Early Rose for five years, and it has always been affected in the way you describe, but this season it is so much so that I do not intend planting it again; fully one-third are gone. Othersorts, such as Wheeler's Milky White and Victoria, are sound.—S. WELLS, Osborne Park Gardens.

SEEING your announcement of a "new disease" amongst Potatoes, and the letters of Mr. Fenn and Mr. Douglas, and your own observations on the same, I feel it may be of some service if I state that it is not quite new here. My Early Rose Potatoes were affected to the extent of about one-eighth in the year 1872. In 1873 they were still worse. In 1874 they were not alone, as my Early Vermont, obtained of Messrs. Veitch, were affected too. This year the Early Rose, Vermont, and Late Rose are all affected, the latter the worst. Brownell's Beauty being alongside, but quite sound, as it was with me last year. I have about eleven other Americans, all at present sound; nor have I seen it in any of my English varieties, of which last year and this I grew upwards of fifty sorts. I have inspected many hundred gardens in this division, and find the disease affecting the same sorts only as my own. Whether the fungi are the cause or the effect is a problem for the horticultural doctors, which I hope will be solved.—C. W. HOWARD, Canterbury.

### ROYAL BOTANIC SOCIETY.

JUNE 30TH.

A SERIES of successful shows was brought to a close with this Exhibition, which was devoted to fruit and cut flowers. In neither department were the collections remarkable either for extent or uniform merit. We must speak of it as a small show, for several classes were empty; yet there was some good fruit. In the four classes for pot Vines Messrs. Lane & Son, Great Berkhamstead, were the only contributors with Foster's White Seedling, carrying about thirty bunches, and Buckland Sweetwater, with a fewer number of bunches but of better quality. For a collection of fruit there was no entry. In Pine Apples was scarcely any competition. For two Queens Mr. Brown, The Beeches, Weybridge, had the best, but nearly equal were those from Mr. Landford, gardener to the Earl of Beville. The fruits averaged about 4 lbs. weight. Mr. Ward, gardener to the Earl of Radnor, exhibited Providence of 9½ lbs.; Mr. Davies, gardener to W. Booker, Esq., Cardiff, had a large unripe fruit of the same kind; Mr. Douglas, gardener to F. Whitbourn, Esq., putting up a nice Charlotte Rothschild.

In the Grape classes very good fruit was staged. For baskets of 12 lbs. there were, in blacks, eight competitors. Mr. Ginnett, gardener to F. Wilmet, Esq., Isleworth, had Hamburgs, perfect in colour but not large; Mr. Bones, Mr. Douglas, Mr. Johnson, Mr. Bridgman, and Mr. Akehurst having collections of nearly equal merit. In the corresponding class for whites the best basket came from Mr. Douglas; Mr. Fiest, Mr. Bond, and Mr. Bannerman had also very good collections. For three bunches of Black Hamburg five lots competed, Mr. Johnson, Mr. Jackhurst, Mr. Douglas, and Mr. Sage each setting up good examples. Splendid Madresfield Courts came from Mr. Ginnett, and well-

finished Royal Ascoots from Mr. Douglas. For three bunches of Muscat of Alexandria Mr. Fiest sent highly-finished medium-sized bunches, Mr. Bannerman and Mr. Bond competing with larger and also good examples of culture. Other white Grapes were Buckland Sweetwater from Mr. Douglas, and Foster's White Seedling from Mr. Sage.

Peaches were very good. Bellegarde and Noblesse from Mr. Bones; Teton de Venus and Violette Hâtive from Mr. Johnson; and Royal George and Grosse Mignonne from Mr. Lake. Nectarines were also good. Elruge and Violette Hâtive from Mr. Lake; Downton and Violette Hâtive from Mr. Bannerman and Mr. Grant; and Violette Grosse and Elruge from Mr. Johnson.

Melons were few and very irregular in size. Mr. Coleman's Easton Castle, green flesh, was the best Melon in the exhibition. He had also Read's Scarlet Flesh. Mr. Harvey had a seedling and Duke of Edinburgh; Mr. Chard and Mr. Douglas also competed. In the class for the heaviest and best-shaped scarlet flesh, Duke of Edinburgh, oval, from Mr. Sage, weighed 7½ lbs.; Duke of Edinburgh, round, from Mr. Harvey, and a very nice netted fruit from Mr. Goldsmith, competed.

Very good black and red Cherries came from Mr. Musk; excellent whites—Elton and Bigarreau—from Mr. Douglas; and Governor Wood and Bigarreau from Mr. Chard. The only Plums we noticed were Prince Englebert and McLaughlin's Gage from Mr. Sage.

In the class for four dishes of Strawberries six very fine lots competed. Mr. Douglas had Due de Magenta, "Seedling," Amateur, and Admiral Dundas, all of good size and colour. Mr. Clarke had President, Sir J. Paxton, Dr. Hogg, and British Queen; Mr. Turner, Slough, had James Veitch, very large, and Leon de St. Janier; Mr. Meadows and Mr. Smith, Romford, had also capital dishes. Figs came from Mr. Sage, who had Brown Turkey very good, and Early Violet; Mr. Pottle competing with Brown Turkey and White Marcellines. In the class for any fruit not mentioned in the schedule Mr. Sage had a bunch of Musa Cavendishii weighing 80 lbs., in fine colour and uniformly ripe.

Roses were not extensively shown. In the nurserymen's classes Messrs. Turner, Paul & Son, Cant, Keynes, Fraser, and Bennett competed with the well-known popular varieties, Captain Christy and Mr. Chard being the principal amateur exhibitors. Captain Christy had a very good box of Madame Lecharme, and Mr. Cant another still better—indeed, the best we have seen of this variety. Besides these the most noticeable boxes were Devoniensis from Mr. Turner, and Niphotos from Mr. Keynes. Mr. Bennett had Mdle. Marie Cointet; Mr. Wm. Paul Magna Charta, Star of Waltham, and other seedlings; and Messrs. James Veitch & Sons blooms of great merit. Mr. Turner and Mr. Douglas had boxes of Pinks, and Mr. Wheeler collections of tender and hardy cut flowers.

The whole of the large marquee was furnished by the Pine Apple Place Nursery Company, and the plants, both for numbers, variety, and condition, gave an admirable idea of the resources of that well-known establishment. Striking amongst the plants was Lobelia pumila magnifica, which cannot fail to take a foremost rank in our gardens; it is exceedingly rich and free. Lobelia Sparkle is also very attractive, and Blue Stone gives promise of usefulness. The awards were not completed on our departure from the gardens.

### THE CHISWICK GARDEN OF THE ROYAL HORTICULTURAL SOCIETY.

ALWAYS interesting, and much more than interesting, are these renowned gardens. They are in the highest degree instructive, being the national testing ground of flowers, fruits, and vegetables. They are emphatically useful by the quiet progress of important work which is ever going on under Mr. Barron's able superintendence.

With this practical testing ground whereon to found their judgments the Committees of the Royal Horticultural Society possess a means of arriving at a sound decision unequalled by any other body of sensors. In the best interests of national horticulture these gardens should be sustained. As a supply ground for the ornamental appendage of South Kensington they fulfil an important mission, but of immeasurably greater moment is the quiet work done there of accurately proving the qualities of flowers, fruits, and vegetables, and determining an authoritative nomenclature. That is and should be the great object kept in view at Chiswick.

The soil is good, the site good, and the management unquestioned; added to these main conditions is the large body of practical and scientific men forming the Garden Committee, whose object is to elicit truth, and who constitute a jury which should command the respect of the horticultural world.

The gayest part of the gardens are the beds of Violas. These beautiful hardy spring and early summer flowers have been sent by different growers from various parts of the

country. Some of them evidently possess great merit, and are likely to continue blooming, at any rate in partially shaded places, throughout the summer. In Scotland *Violas* are extensively used as bedding plants, but in the drier districts of England their use has not been satisfactory. The beds at Chiswick are in a thoroughly open and exposed position, and the effect of some of them is at the present moment very rich. To those who desire an effective display of flowers in the early months of the year these bedding *Pansies* are commended. They are not nearly cultivated to the extent that their merits deserve, and in most places room may be found for these bright early flowers. Long lines of them in cool shady borders are particularly effective, and beds in partial shade are rich and long-lasting. But for spring and early summer decoration they require no shade, but flourish best in the full sun.

The richest section is the blue and purple-coloured flowers. In this class so many varieties possess merit that it is difficult to select the very best. Taking all points into consideration—as colour, habit, freedom of bloom, constancy, and easy growth—The *Tory* claims a high place, if not the post of honour in this section. It is worthy of extended culture. Richer and finer flowers are seen in *Alpha*, *Royal Blue*, *Dickson's King*, and *Mazarine Gem*. These are indeed fine varieties, but it is doubtful whether they will continue in hot weather. Whether they will or not, they are unquestionably fine flowers for their season. *Blue Bell* and *Lothair* are dwarfer with flowers of less merit individually, but for massing purposes they are varieties not to be lost sight of. *Blue King* is, for spring, one of the best, but for summer effect is not to be depended on in dry districts. *Viola Cornuta Perfection* is free and continuous-blooming, and for lines and masses is useful; *V. O. Magnificent* being richer in colour, but less free and floriferous. The above are the best of this rich section, and all named are worthy of being cultivated.

The yellows are, of course, very bright. The best is *Sovereign*. It is dwarf, rich, free, and, what is no small advantage in *Pansies*, its blooms look one boldly in the face. Some otherwise good flowers have a habit of looking at the earth. A variety may look well in the exhibition stand, but in the garden may hide its beauty. It is essential to correct judgment to see the plants growing. *Bedford Yellow* is a fine, bold, and free-flowering variety, and for large beds and distant effect is one of the best. *Crown Jewel* is also a fine clear yellow. *Yellow Boy* is a small, dense, and exceedingly free-flowering variety. As a dwarf bedder it is good. *Pride of Bufford* is not good here.

A thoroughly satisfying white bedding *Pansy* has yet to be raised, or at any rate proved. Some of them look very nice and pure when the flowers first open, but eventually they become suffused with lilac, which quite spoils them. *White Swan* and *Dickson's Queen* and *Snowflake* are fairly good, but some unnamed seedlings from the last-named Edinburgh firm are the most promising.

Amongst the plum-coloured or maroon varieties *Mulberry* is one of the best. The *Shah* is also very rich. *Queen of Lilacs* is an effective bedding variety; it is novel, free, and good. *Princess Teck* is paler in colour, and less robust in habit. *Primrose*, as its name denotes, is a soft yellow; it is dwarf, and makes a nice bed, but does not hold up its flowers sufficiently to become popular. A variety of the old *Viola cornuta* named "*Williams*" must be noticed. It is in all good qualities a great improvement on the type, and as a bedder is very effective. The old variety *Maggie* is represented; it is quaint, distinct, and worthy of culture. For cut blooms this variety is very useful. The above are the best of the varieties now growing at Chiswick, and they are recommended as being amongst the best of dwarf, hardy, early-blooming garden plants.

We noticed a fine old border plant in excellent condition—viz., the *Willow Herb*, *Epilobium angustifolium*. For large masses of purple in front of shrubs this old plant is especially suitable and effective. It only requires to be planted and it will take care of itself.

Forcing *Pink Lord Lyons*, the parent of *Derby Day*, is very valuable for indoor or outdoor decoration. It is a smooth fine flower of a purplish mauve colour. The *Pelargonium* beds are not yet attractive. The plant department savours of a nursery, for large numbers of popular decorative plants are propagated and grown on for South Kensington.

Fruit trees are in fine order and are heavily laden with fruit. The horizontal cordon Apple trees form an ornamental margin, and the vertical and diagonal cordons on walls are particularly

fruitful and healthy. The collection of pyramid Pears is very extensive and fine, many of the trees being models of this form of culture. The stocks, the French *Paradise*, *Doucin*, *Scott's*, *Rivers'*, and Dutch *Paradise* are all fruiting, the first named being the most prolific and promising. The influence of the several stocks on the *Blenheim Pippin* will, however, be shortly determined, the grafts on the several stocks being very healthy. *Cox's Orange Pippin* two years grafted on the French *Paradise* is fruiting well, and the miniature trees are also growing freely.

The Peach house—trees in pots and standards planted out—is literally full of fruit, and a house of seedling Peaches will shortly be interesting, for most of the trees are carrying good crops.

The large viney is carrying a full crop of medium-sized bunches now being thinned. It is a mixed collection, and in a few months will be an imposing sight. *Gros Guillaume*, of which something has been said in these pages, is showing large bunches and plenty of them on the young wood, but on the old spurs it is nearly barren. Mr. Barron can only produce a good crop of this Grape by laying-in young wood. In the grounds a collection of Red Currants are being proved both as to their correct nomenclature and qualities. Some are robust, some curious, some fruitful, and the rest barren. The most promising are *Houghton Castle Seedling* and *Red Dutch*, syn. *La Hâtive*. This is a very interesting group, and will afford much instruction to cultivators. The most fruitful and profitable Strawberries are *Viscomtesse Héricart de Thury* and *Amateur* (Bradley's). The crops on these varieties are very large and fine.

The chief centre of interest in the vegetable grounds is the Onion department. We did not count the hundreds of labels, each denoting either a sort or the source of a sort. It is a fair and extended trial, and the crop is looking thoroughly well. It is altogether premature to offer remarks on these, but we may note that the *Queen* is distinctly earlier than all others. It is ripening but the bulbs are very small. The great and special value of this variety is noted by Mr. Luckhurst. Sown in the spring it is early but small, but sown in the autumn it is early and large. We reiterate the advice of Mr. Allis, Sow the *Queen* and the silver-skinned pickling Onion in the autumn for an early and valuable crop in the spring.

The trials of Dwarf Kidney Beans are also an important feature of this season's arrangements.

A Broad Bean is worthy of notice, the *Seville Longpod*. It is a very distinct variety, and is affording pods splendid for exhibition purposes. This variety is distinct, of medium growth, and is bearing a nice but not a heavy crop. The whole of the flowers do not set, but the pods when perfected are superior to all others we have seen. It has furthermore another good quality in being four days earlier than the *Early Longpod*. How is it that cultivators and advisers cannot leave off the parrot-like cry of stating the *Mazagan* to be the earliest Broad Bean? That honour does not justly belong to the *Mazagan*, and it is strange that the fact has not been found out by the authorities of kitchen gardening. The *Mazagan* is not an early Bean at all, as all may prove who will sow it and the true early *Longpod* on the same day. The *Longpod* is the earliest and best of the Beans in general cultivation, but the *Seville* at Chiswick precedes it in being ready for use.

Without any great show the gardens at Chiswick are doing important work; they are calculated to confer great benefit on the horticultural community, and the fullest scope should be afforded them to carry out their mission.—W.

## BUTTON-HOLE ROSES.

MR. RADCLIFFE must have written in fun when he recommends *Madame O. Joigneaux* and *Charles Lefebvre* as button-hole Roses; but he might as well have "gone the whole hog" and recommended a full-expanded *Paul Neron*. He omits many beautiful button-hole Roses—e.g., *Madame Faloot*, *Madame F. Janin*, *La Boule de Neige*, and *Prince Camille de Rohan* (in bud). There are several fine Teas, too, of late introduction that he does not mention; for instance, *Anna Ollivier*, very fine in bud for button holes, and *Amazon* the same. I do not think we shall find many rosarians recommend *Abbé Brametel*, *Maxime de la Rocheterie* or *Baron Chaurand* for any purpose.—P.

I AM surprised that Mr. Radclyffe, in giving (p. 486) a list of button-hole Roses, does not mention (*Thea*) *Homère*. It is



without exception the best button-hole Rose I know. Pray recommend it.—A. B.

### CONOPHALLUS BULBIFERUS, Schott.

THIS is one of those Aroids which throw up the flower stalk before the appearance of the leaves. It is clearly what Wight has figured under the generic name of *Pythonium*, and as there is an unfortunate misprint on the plate it was supposed to be distinct from the well-known *Arum bulbiferum*, which is, however, not the case. The plant is interesting from its beauty when the spathe first opens, but unfortunately during the emission of pollen, which takes place under the form of delicate cirrhi, the stench is intolerable, and to some constitutions causes unpleasant symptoms. Out of the same lot of tubers, from which the specimen we have figured was produced, appeared other Aroids, and amongst them the curious *Amorphophallus campanulatus*, which was brought up to South Kensington by Messrs. Veitch on the 16th; the smell, however, like that of putrid cheese, was so intolerable that in spite of its curious appearance it was soon sent home. One plant, after the pollen was ejected and removed to a cooler temperature, became perfectly scentless.

The young stems of various Aroids are sold in the bazaars at Rangoon, tied up in bundles like *Asparagus*. They probably require one or two changes of the water in which they are boiled before they can be eaten with impunity. We are indebted to Major E. S. Berkeley for the opportunity of giving our present figure.

### A HINT TO NURSEYMEN.

In the present day, when in or near large towns, some place where persons can enjoy a recreative stroll without the annoyances of the public road is often a requisition, and a suitable extent of land for a park cannot always be obtained; some nurserymen have utilised their grounds by allowing respectable inhabitants of the neighbourhood to have the privilege of walking in them. This to some extent is advantageous to both parties, since the visitors to the nursery garden are likely enough to purchase some of the trees or plants exhibited from time to time; only a slight awkwardness arises occasionally in

the case of those who may not wish to buy except now and then, and hence hardly like to avail themselves of the boon. I think this difficulty might be met by the issue of tickets of admission at a suitable charge, which might be annual or monthly, according to circumstances, and not transferable.

This would relieve any from feeling they were placed under an obligation they do not precisely know how to meet when visiting a nursery in their neighbourhood for the purpose of promenade; while, having the names of all visitors, the proprietor has a guarantee in the event of any damage being done. In certain instances known to me nurserymen have made it a rule "absolute" that no young children be admitted; perhaps this is going rather too far, and it may be sufficient to require that they be accompanied, not by an older child, but by a parent or other adult.

One nurseryman near Gravesend has launched out in a new direction by not only thus issuing season tickets, but also arranging for "grand morning concerts," three in the season; while the orchestra is to be so constructed as to be subsequently turned into a reading pavilion. There is also to be provided a croquet lawn, with ladies' and refreshment rooms. It remains to be seen how far this will answer expectation, since we cannot suppose that a proprietor of a nursery-ground will run the risk of damage for purely philanthropic considerations. Why should there not be some popular botanical lectures delivered at nurseries in the vicinity of towns, where illustrative specimens could be partly supplied from the garden ground and partly from rural districts that may be adjacent?—J. R. S. C.

### FLOWER MISSION.

AMONGST the appeals for fruit and flowers for the poor, none has been made by the Wilberforce Mission in south London, though any gift of the kind in that poor and densely populated neighbourhood will be most gratefully received. The few flowers they have been enabled to distribute have been highly prized by the recipients. The gift of a few Primroses to their children brought two women

to the church who had never been seen there before, that they might express to the clergyman how much pleasure the sight of the flowers in their rooms gave them. As there is no flower mission, and all their funds are required for the necessities of the poor, would those who feel a wish to brighten the dreary

Fig. 1.—*CONOPHALLUS BULBIFERUS*.



rooms kindly make their flowers into bouquets? Where one garden would not supply flowers for a basket several might contribute a few, and send them, carriage paid, to the Wilberforce Mission House, The Paragon, New Kent Road.

[Those having abundance of flowers could not better bestow some of them than by sending them to "The Wilberforce Mission House."—EDS.]

### ELECTION OF STRAWBERRIES.

THIS apparently being an age of election, could not we readers have one of Strawberries, which would, I think, be a most useful one? now being the time to take votes; four or five sorts for early, the same for midseason, and of course late, making twelve or fifteen in all—sufficient for any useful purpose; also naming staple of soil, as light, medium, and strong, with any other useful hint thought worth notice for some peculiar quality. Rosarians have richly benefited by the elections, why should not fragarians? And as one is said to do well where the other flourishes, I hope to see an election soon, in which I shall be happy to join.

[In vol. xxi., page 897, is an election of Strawberries, but we will readily publish in arranged form further lists of varieties which are found by our readers to succeed in their localities and soils, which must be particularised.—EDS.]

### THE ORIGIN OF OUR GERANIUMS OR PELARGONIUMS.

I HAVE now in bloom *Pel. Zonale* and *Pel. Zonale transparens*, and it is very hard to believe these can be the parents of our beautiful bedding Geraniums. What a vast improvement has been effected! I often feel what a pity it is there should be so little recorded of what our ancestors did in the way of crossing these plants. Who knows the plants poor Donald Beaton employed? Which were the parents of Rollisson's Unique, *Sydonia*, Little Pet, Major Clarke's seedling, or Madame Gewitzaki? To what are we indebted for the various races of large-flowered Pelargoniums, French and Fancy? These have evidently not descended from the same original Cape species, and yet no one I ever met could give me their history. By their history I do not mean the history of the gradual improvement by crossing and selection, but the history of how the first of each race was obtained. The man who effects the first cross between two dissimilar plants, particularly if the result of such cross should prove fertile, has effected much more than he who improves the plant afterwards; he has given the start to a new breed, and no one can tell what beautiful plants may be produced from it.

Botanists have been often accused of making too many species, but anyone who has grown a large collection of Cape Pelargoniums and tried to cross them will hardly think they have erred in this manner with regard to this genus. How they differ in foliage, habit of growth, saying nothing about size and colour of flowers! How little *glanifolium*, *oblongatum*, *tricolor*, *echinatum*, *betulinum*, *radula*, *ardens*, &c., resemble each other! Then, again, it appears impossible to cross many of them with dissimilar kinds—at least it is very difficult. Mr. Wills stated that he had tried thousands of times to effect a cross between the *Zonals* and *Ivy-leaved Pelargoniums* before he succeeded in raising *Willisii*, and many of the crosses produced appear nearly or quite sterile. Who has seen a seed of *Mangles's Variegated* or *Little Pet*? and many others might be mentioned which very rarely produce seed, if ever. Yet when we remember how many beautiful plants grown under the general name of Pelargoniums (bedding or show) have been raised, and how many species there are growing in Africa, who can say what we may yet see obtained from them? How many changes may be rung on a hundred bells? and we have many more distinct Pelargoniums if we can but induce them to cross. If a few have given us such beautiful races of plants, what may we not expect in the future? I have great hopes our Pelargonium Society, if kept up with spirit, will produce great results.

Liberal prizes for collections of native kinds will bring into notice what may be considered raw material, and good prizes for plants the result of first crosses between native species cannot fail to bring to light plants which may prove parents of improved races. The raisers of such plants are apt to undervalue them because they are not perhaps very showy, and neglected plants are soon lost; whereas other persons might have perceived in a plant of this description a fresh

starting-point with great possible results. London described some 240 species, and as many garden varieties produced from them; how many of these can now be found in cultivation? If, as may be supposed, many of them are lost, how much may we not have lost with them of possible improvement?

It will be observed that I have headed this paper "*Geraniums* or *Pelargoniums*," for I do not believe in the distinction, having many plants the produce of two species of Pelargoniums which I cannot induce to seed; whilst I have a plant raised by Mr. E. J. Lowe between a *Zonal Pelargonium* and a *Geranium* which has produced seed. They all belong to the order *Geraniaceae*, and I remember the time when it was thought quite pedantic to talk of Pelargoniums at all. After a time the large show varieties were called here Pelargoniums, and the bedding kinds Geraniums; and really we require some distinguishing names for these two classes. "Show" Pelargoniums will not do when all are shown; "French" and "Fancy" are poor distinctions, equally applicable to many of both classes; "Scarlet" is absurd as applied to a class where scarlet no longer predominates, and which contains every colour from white and pink to dark crimson; "Zonale" is equally absurd, when many of the best have no zones; "Nosegay" is no longer applicable, when it is impossible to say whether a plant has more Nosegay or Zonale blood in its composition; "Bedders" will not do, for many beautiful pot plants do not do well out of doors, but which are grand for the conservatory. So I shall continue to call my pets Geraniums and the others Pelargoniums till we are provided with better names by the recognised authorities.—J. R. PEARSON, *Chilwell*.

### THE CARTER CHALLENGE CUP.

WE again remind intending exhibitors that the competition for this great prize takes place next Wednesday at the Royal Horticultural Society's Gardens, South Kensington, and have been requested to give publication to the following important announcement:—

"As some doubts have been expressed relative to the difficulty gardeners in the more northern parts of the kingdom will have in producing Carter's Champion Runner Bean at this early season, Messrs. Carter, in order to make the competition as great and as general as possible, have kindly consented to make its production optional on the part of the exhibitor, as well as that of the Fern-leaved Parsley."

The schedule is therefore thus revised:—Scarlet Runner Beans, optional; any good variety of Parsley, and eighteen pods of Beans in all cases.

### BELVOIR CASTLE.—No. 1.

#### THE SEAT OF THE DUKE OF BUTLAND.

ANYONE looking at the map of the midland portion of England will see that the three great ducal seats of Chatsworth, Trentham, and Belvoir form a triangle, and nowhere perhaps shall we be able to match such a noble trio. They have each of them their differing characters, but all alike are of that class of which it is said our late dirty visitor the Shah confidentially informed the Prince of Wales that it was not for the security of his throne that such grand places owned by such mighty seigneurs should exist, and signified that he should adopt a short and easy method, quite in accordance with his Eastern notions, of getting them into his own possession. I had seen Chatsworth with its palatial residence and grand surroundings, and Trentham with its soft and luxurious scenery; and it now remains for me to visit Belvoir, unlike in many respects to either of the others—a grand baronial residence, with its turreted battlements, standing high above all around it, towering up in the midst of a level country, a great deal of which is owned by the Duke, whose tastes have doubtless been fostered by the character of the country in which from earliest childhood he has been brought up, and which tastes have to a certain extent stamped their character on the style and manner of gardening which so wise and intelligent a man as my excellent friend Mr. Ingram has adopted to meet the requirements of the place.

The Duke of Rutland is a sportsman, and as Belvoir is situated in the best hunting county in England, it forms his residence during the winter and spring months. When the hunting is over he is off to London for the season, and then to his seat in Derbyshire for shooting, and so on, and therefore gardening at Belvoir is carried on in special reference to the time when he is in residence. Now, go into any ordinary place

in those months, or indeed into many a place where gardening is celebrated, and there is little on which its owner can gaze with much satisfaction. Of course, in his greenhouses and conservatories he has the wealth of other lands, but his garden is bare, the beds are empty, and he only lives on the promise of the future. But it is in spring that Belvoir is in its glory. Its spring gardening is famous, and a mass of beauty greets the eye as one comes upon terrace and glade where flowers which one used to meet with in earlier days, but which have been shoved aside as not fit for their aristocratic congeners, have found a home, and where they amply repay the care bestowed upon them by Mr. Ingram.

It was on one of those beautiful days more like July, in the early part of last month (May), that on my way to Manchester

I determined to fulfil a long-promised wish and to accept an oft-repeated invitation to visit Mr. Ingram at Belvoir. I was indeed a little too late; should have been much more so had it not been for the late spring, or rather shall I not say the prolonged winter? But I was enabled to see a great deal of the beauty of the gardening, and could easily imagine what it had been just before, for it is Mr. Ingram's plan not to depend on a mass of bloom at any one particular time, but to have a continued succession. And so away to the Duchess's garden. This is a beautiful glade of considerable extent, surrounded on all sides by trees of grand dimensions which were then in their early beauty, developing those varied tints of green which, if not quite so glowing as the autumnal ones, are at any rate fresher, and, moreover, are associated with the thoughts of the

Fig 2.—THE DUCHESS'S GARDEN.

lengthening and brightening days of summer, and not with the shortening and darkening days of winter. In this glade the natural rocks have been accommodated to the requirements of alpine gardening, while the upper portion has been arranged in beds. This, while effective, I would fain hope may some day share in what are evidently Mr. Ingram's own predilections, and be merged in the irregular but most effective style which is so charming in the lower parts of the ground. Not that I have a word to say against the bedding-out, save as such, for nothing could be better than the tasteful arrangement of colour both of foliage and flowers. The Tulips, Hyacinths, and Crocuses were all over; but the bedding *Pansies*, the *Oxlips* (of which the Belvoir strain is remarkably fine), were in flower. The beautiful *Gentiana verna*, accommodated with nice little ledges on which its brilliant blue shone out brilliantly, the bright yellow *Doronicum austriacum*, and other fine plants were there. And then how beautiful were the blue *Forget-me-nots*! how luxuriantly fine the *Saxifraga crassifolia*! Then, again, we had the brilliant blue of *Lithospermum prostratum* as it trailed over the rockery, and that of its larger congener *L. Gastoni*. Of a softer but no less beautiful shade of blue was *Myosotis dissitiflora*, though now nearly past, as it is the earliest of the tribe. Then how fine was *Veratrum nigrum*, beautiful for its foliage! And another plant which Mr. Ingram uses very largely—and well may he do so, for its fine bronzy foliage forms quite a grand point in the spring gardening, *Heuchera lucida*—I have not seen it in use before. Then there

were bright masses of *Dianthus neglectus* and *alpinus* with their dense tufts of lovely pink flowers; and turn which way you will gems of rarity or beauty met the eye.

Nor let it be supposed that all this is easily managed work. These midland counties are cold; they suffer from drought, and last summer had been especially fatal to many of the rarer alpine plants. One likes to linger on these slopes, and the clever sketch by Mrs. Ingram, who is an artist of no slight merit, will give some idea of its situation; and as one stands on the upper portion of it and looks down on the carpet of lovely green backed by the feathery and elegant foliage of the Birch, it is indeed hard to be obliged to tear oneself away from it.

A word or two on the beds shown in the sketch. Here is one of *Myosotis dissitiflora*, with *Doronicum caucasicum* springing from it. Here is another—one of the serpentine beds—composed of dwarf Wallflowers, *Myosotis dissitiflora*, *Aubrietia* (Ingram's strain), and at the edge *Sedum* acre. Then I noticed another of *Daisies*, *Aubrietia*, *Oxlips*, *Forget-me-nots*, *Heuchera*, *Heath*, and *Arabis*; but the combinations were numerous and beautiful, although, as I have said, the wilder and more natural portion of the garden pleased me most.

As these slopes are so extensive Mr. Ingram is able to have masses of colour. Those of us who grow a few alpine and herbaceous plants must be contented with their individual beauties, but here it is otherwise; and although no glowing colours meet the eye, yet the deep and lovely blues which so

predominate in alpine plants and are so rare in our gardens, and the bright and shining yellows intermingled with more sombre shades, make a real scene of beauty.

There are some other things about Belvoir I should like to mention, but I have selected as most worthy of notice and most characteristic of the place, and must reserve a few other observations for a future time.—D., Deal.

### THE FERRO-PLANT.

Most plant-stands are formal affairs, mere skeletons of wood or wire, that detract from the beauty of the flowers and do not readily lend themselves to the adorning of a room, or they are very costly and hold but few pots.

Brackets are well enough in their way, but sometimes inconvenient, and so we decided to try the effect of a bit of rustic work, and the result has been eminently satisfactory. A square of oiled cloth prevents damage to the carpet, and on occasion cut flowers and pressed ferns are added to its living beauties. Some sticks of laurel, a saw, bit, and hatchet, with a little mother wit, is all the materials and tools necessary for its construction. Other kinds of wood will answer, but laurel is the best because of its tough and fine grain, and peculiarly suitable manner of growth. Pick out your sticks in the woods, but you must humour them a little, for you will never find just what you want. For putting them together as a frame, use small carriage bolts—nuts inside—one of them is worth several screws or nails, and it must be strong. For the top make a frame of 2 by 3 inches scantling, on which nail

some boards, and then take a sheet of zinc 3 inches larger each way than the top, turn up the sides  $1\frac{1}{2}$  inch, bend the corners round, and you have a water-tight top without rivets or solder. The sides of the frame and top must be hidden by the rustic work. Now put your aquarium in position (the aquarium is an essential part of the ferro-plant, though it may be a globe), then with sand, cinders, and water lime or plaster of Paris, coloured by some dry paints as yellow ochre or burnt sienna, build some rockwork on a separate board fitted in the space not covered by the aquarium.

The flower-pots should stand on wooden blocks or empty fruit-cans turned upside down, which make it much lighter. The branch at one corner is a supplemental affair bolted on; the terminal supports for pots are the collars of gas fixtures, which are admirably adapted for the purpose in size and shape.

To furnish the ferro-plant go to our native woods, and you will find a wealth of ornament hardly dreamed of. Cover and hide the edges of the zinc trough with moss, for which the thin mats torn from the faces of rocks, and sprinkled with

Polypods, are most suitable. Some exotics, as the Calla, &c., are in the figure, but for a long time we had nothing but native plants.—W. H. SHAMANS (in *American Gardeners' Monthly*).

### THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

I WISH to draw the especial attention of your readers, and of my brother gardeners in particular, to the near approach of the thirty-second anniversary festival of the Gardeners' Royal Benevolent Institution. It is to take place at the London Tavern, Bishopsgate Street, on July 2nd, and under the presidency of R. Broadwater, Esq., Master of the worshipful company of Fruiterers, which is most *apropos* of such an occasion, for who can value more truly the services the gardeners do the community than can the fruiterers of the country?

In the long list of Stewards—about seventy in number—we are gratifyingly struck with those who year by year give thus their valuable time and support by their means, to this invaluable Institution. Gardeners have the power to aid this festival, through their employers, by sending fruit and flowers to enliven the display, and thereby to increase the pleasure of those who assemble for a worthy object.

Finally, let me earnestly ask every non-subscribing brother gardener not to pass by this appeal without deciding to become at once a member of this only true federation of gardeners. The simple guinea per annum assuredly can be spared by all who possess the will, even from what I confess

are in far too many cases wretchedly low salaries. Such a guinea will never be really missed by any, and it might to you, as to myself, some day become a solace to old age, infirmity, and adverse visitations of Providence, such as are at present hidden. Apart even from this, delay postpones the guarantee, which is the right of every fifteen-years subscriber or his wife's receiving the Institution's aid.

All packages should be addressed to Mr. E. R. Outler, G.R.B.I., London Tavern, Bishopsgate Street, London, either on Thursday, July 1st, or not later than the earlier trains on the morning of Friday, July 2nd. Let all who will aid, therefore, be so kind as to write to the Secretary as soon as possible.—WILLIAM EARLEY.

ROSES NOT CLUSTERS.—Mr. Robson's demand for "Roses that have the good property of furnishing good long stalks to each flower, whereby they can be cut without loss," reminds me of an old mess-room story, that when a certain officer of high rank, whose head was not very well covered at the top, was chaffing one of his staff for his prematurely grey locks,

FIG. 3.—THE FERRO-PLANT.

the Aide-de-camp replied, "Ah, but I can make my head like your Royal Highness's in a few minutes with a razor; but you can never make yours like mine." Cannot we with a pen-knife make any Rose like those which naturally grow with long stalks to each flower? but we cannot give the abundant bloom to those which flower singly.—AN OLD SUBSCRIBER.

### OUR FRIEND THE CUCKOO.

Do cuckoos live exclusively on caterpillars, or, do they do any harm? I had hoped to have seen this subject more ventilated, as it was referred to in a recent number. Being in Ireland last month and out for a day's fishing (with bad sport), I asked of the keeper what some poles were intended for, and was informed they had hawk traps on the top, and that nearly fifty hawks had been killed this season. This may be all very well, but in addition over thirty cuckoos had been destroyed. Now if, as a correspondent recently stated, cuckoos do good and no harm, and that they are allowed to be scarce this season, I for one should like to plead for the poor cuckoos, and could not do better than through your Journal if you deem it worth notice. I purposely at present suppress the information of the exact locality. I remonstrated with the keeper, who was under the impression they sucked eggs. I told him I did not believe it was so. Unfortunately these traps kill the birds before they are taken.—WAVEBREE.

[Macgillivray, one of our best ornithologists, says:—"It is a very remarkable circumstance that when the bird arrives at first, its food consisting of coleopterous and other insects, the cuticular lining of its stomach is smooth; whereas some time after, when the bird lives chiefly on hairy caterpillars, it is often completely covered with their hairs, which are thrust in and arranged in a circular manner, so as exactly to resemble the pile of some quadrupeds. This disposition of the hairs shows that the action of the stomach causes the mass of food contained in it to move in a rotatory manner. This down, of course, is nothing else than hairs of caterpillars." We are assured that the popular opinion that the cuckoo sucks eggs is a popular error.—EDS.]

### PROGRESS OF THE COLORADO POTATO BEETLE IN 1874.

By W. F. KIMBY, Assistant Naturalist in the Royal Dublin Society's Museum.

FURTHER information regarding the Colorado Potato beetle having been lately published by Mr. Riley in his last report on the insects of Missouri, I hasten to lay his additional remarks before the readers of the *Farmer's Gazette*. The beetle has now penetrated to the Atlantic seaboard at many points, along the whole coast of the United States, from New England to Virginia and Maryland. The newly invaded districts appear to have suffered most severely, because the farmers in those places which have long been infested have become used to the infestation, and familiar with the best means of dealing with it. It is worth remarking, that while the insect has been exceedingly destructive in its original haunts in the mountain ranges up to about 8000 feet, yet it cannot live above that altitude, which Mr. Riley attributes to the very dry atmosphere and the cool nights.

Mr. Riley remarks on the steps which have been taken in Europe to prevent its introduction, and although he thinks that Sir M. H. Beach has rather underrated the danger, yet he considers that the only risk lies in the introduction of the insect in the perfect state. The larva feeds exclusively on fresh Potato tops, and will not touch the tubers; and though the eggs may be introduced with Potato haulm, yet it is unlikely, as it rots too easily to be often used in packing. Besides, Potatoes are mostly exported during that part of the year when there are neither eggs, larva, nor Potato vines in existence in the United States. There is only one other possible way of transmission, and that is in sufficiently large lumps of earth, either as larva, pupa, or beetle. Now, if the American dealers be required to carefully avoid the use of the haulm or straw, and to ship none but clean Potatoes, as free as possible from earth, the insect's transmission among the tubers will be rendered impossible; and when such precautions are so easily taken, there can be no advantage in the absolute prohibition of the traffic in American Potatoes. As well prohibit traffic in a dozen other commodities, in many of which the insect is as likely to be taken over as in Potatoes, and in some of which it is even more likely to be transported. He proceeds

to recommend the plan suggested in his last report, and since adopted by the German government—viz., that cards giving a coloured figure and a description of the beetle should be posted up in all vessels plying between America and the British Isles, with a request that the passengers and crew will destroy any specimens that may be met with.

Mr. Riley considers that the Potato beetle, if once introduced, would thrive as well in most parts of England and Europe generally as in America. Extremes of heat and drought, as well as cold and wet, appear to be unfavourable to it. It is, however, reassuring to be informed that the American farmer by means of intelligence and a little Paris green is pretty much master of the Doryphora, and that the ravages of the insect and its poisonous character, though real enough, have been considerably exaggerated; while no accidents have occurred from the use of Paris green, except from sheer carelessness and exposure to its direct influence, or from applying it too strong, when it is liable to injure the plants.

The last new food plant which the beetle has attacked is the Mullein.

An ingenious contrivance for sprinkling two rows of Potatoes at once has been adopted, being a sort of water-barrel slung upon the back like a knapsack, and provided with two India-rubber tubes, one on each side, ending in a rose like a common watering-pot.—(*Irish Farmer's Gazette*.)

### NOTES AND GLEANINGS.

At a meeting of the Council of the Royal Horticultural Society on the 25th of June Dr. Hogg was unanimously elected its SECRETARY. At the same meeting Dr. DENNY was elected a member of the Council.

—We have seen a PAMPHLET purporting to be a report of the Royal Horticultural Society's meeting of June 4th. That pamphlet is not a faithful report, and although it has the Society's monogram on its title page, that monogram ought not to have been placed there.

—On the 4th of May I found ADIANTUM CAPILLUS-VENERIS growing in moderate abundance on the west coast of the Isle of Man, near the village of Glenmoy. The young fronds were just peeping from the opening in the rocks, some 10 to 15 feet above high-water mark. I have noticed that several writers, in alluding to this Fern, have confined its occurrence to the more southern parts of England and Ireland.—(H. J. MARSDEN, in *Science Gossip*.)

—We have received a REPORT OF THE HOKITITI AGRICULTURAL AND HORTICULTURAL SOCIETY'S SHOW. Many of our readers will be obliged by our adding that that rarely-heard name is of a New Zealand town. It is comparatively a modern township, but rapidly increasing. Two or more newspapers are published there, and among the awards for plants, fruits, flowers, and vegetables are chiefly those known in England; in fact, we notice only one exception—namely, a prize for Cape Gooseberries.

—THE FLOWERS IN BLOOM at Messrs. Suttons' Seed Farm, about one mile from Reading, are presenting a most beautiful sight, and well worth more than a passing glance by passengers to and from Reading by the Great Western, South Western, and South Eastern railways.

### NOTES ON VILLA AND SUBURBAN GARDENING.

WATERING AND MULCHING.—Time is bringing us into the usually hot month of July, when early crops of vegetables will be fast ripening off, and other successional crops in the absence of rain must be supported and kept growing by the application of water and surface-mulching. Water being such a necessary element in vegetable culture, it is important for an amateur not to underrate its value in sustaining the necessary vigour, so that different crops may come to perfection under the burning influence of the summer's sun. For instance, what may be expected from a plantation of Cauliflowers, Kidney Beans, Scarlet Runners, or Peas and Turnips, if a plentiful supply of water is not given them occasionally? The former would soon assume a blue tinge in the leaf as if the plant was struggling for existence, the heads would be small and tough, and in most cases would not be worth eating; the two next would shed their blossom without setting their pods, or would produce very small pods, with, perhaps, but little in them; and the latter would produce a small hard bulb devoid of that tender flesh which makes the Turnip in summer so delicious.

It is easy, therefore, to perceive what a wonderful difference against the cultivator there would be in the produce of these

crops by neglecting to give them the requisite quantity of water. Again, it is not these crops alone, but almost everything in the garden is more or less affected if water is not applied to counteract the effects of dry weather. The amateur's evenings may be very profitably spent by attending to his crops in watering them. Now, in the application of water and the time for doing it, as well as the condition of the crop, are matters worth the greatest study, and must be left in the hands of those to whom it most concerns, aided by a few general remarks which may be suggested as the most applicable to his garden.

While one may have a garden the soil of which is light and shallow, and, perhaps, so situated that little or no shade is provided from the sun, another position may be quite the reverse—that is, on a level in a valley, with a deep, rich, holding soil with a cool subsoil, where but seldom the summer's sun has an effect upon the crops. This is what I should call a good summer garden, but not so early as the former. The crops in the former garden would require double the water to sustain them to that of the latter, so that there is an opportunity of judging between these two extremes, for gardens of the amateur class are situated in all manner of positions or situations.

There is not a doubt that it is wrong to allow any crop to show signs of the want of water, as then the injury in a great measure has been done, and such injured crops do not often recover lost ground. Again, when once watering is begun it ought to be continued at necessary intervals according to the state of the weather and the growing condition of the crops; and if a succession of showers fall, the extent of their benefit and the depth the rain has entered the soil should be ascertained as near as possible. The subsequent state of the weather, if hot or otherwise, should be taken into consideration in order to judge when the next application of water should be given. When water is applied it should be in such quantities as will reach every root of the plant, and not in small dribblets, which a few hours' sun will cause to evaporate out of the soil again.

We now come to what is called mulching, which is doubtless a very necessary work, and especially on light soils. This prevents a too rapid evaporation from the soil, and encourages surface-rooting, and also saves labour in watering by assisting to retain the moisture. If the mulching is a manure the soil is enriched every time the watering takes place by washing the nourishing properties into the soil, and greatly benefitting the crops; but manure is not always to be had, and then other and poorer materials must be used. If it happens that no mulching is used, then as soon as the soil is dry enough it should be hoed or stirred after every watering, because watering has a tendency to bind the soil, so that air cannot enter.

Now, even mulching can be carried too far; for instance, if applied too thick the warmth of the sun does not penetrate it so as to reach the roots, and air is excluded, and the soil becomes sour and sodden to the detriment of the crop it is applied to, therefore judgment and moderation is necessary.

Again, there is another use to which water can be applied—that is, for cleansing the foliage of plants. In street gardens this is particularly necessary, where dust from the roads is continually blowing over the foliage of Roses and all other plants; and how fresh and vigorous and how cheerful it makes these little gardens look after being cleansed by water! The difference is easily seen by looking at a garden that is not so treated. All this work should be done in the evening, or as soon as the powerful rays of the sun are off the ground; in fact, in the height of summer this should be the principal work of the evening for all kitchen garden crops, as well as those of the flower garden. Evaporation does not then go on so rapid, and there is time for the whole plant to become invigorated and strengthened for the next day.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

It has been a good time for Strawberries out of doors, the weather has not been scorching hot, and the few showers have done no injury. In very hot weather our system of supporting the fruit above the leaves with sprays of elm, beech, &c., does not give such good results as when the season is dull or rainy, but it is seldom that the sun is so powerful as to scorch the berries before they are quite ripe, although it has happened once during the last ten years. It was a dry period when the plants were in flower, and the beds had two or three good soakings with clear water, but some mulchings had been previously placed between the rows. We have had two good pickings of Black Prince for preserving. Notwithstanding the large number of recently-introduced varieties, this old sort still holds an important position; it is preferred in the kitchen, and although small and wanting in flavour for dessert purposes, we grow it in pots for the earliest crops. The plants will be layered immediately.

Apple and Pear trees have been summer-pruned, and it has been positively necessary to thin-out the fruit on some of the

free-setting sorts, especially when the trees have been young. Hawthornden, and the variety called New Hawthornden, sets so freely, and the trees have not the characteristic possessed by some other varieties—that is, to throw off the superfluous fruit; and it happens if they are neglected they become crippled for life. This is specially the case if a dwarfing stock has been used. The Apple maggot is now busy, and the men who prune the trees have instructions to pick off and destroy all fruit that has been attacked. The wall trees have been looked over, and all superfluous shoots have been removed, and the remainder laid-in to the wall. All small fruits should be picked as soon as they become ripe, and they must be gathered when quite dry.

### VINERIES.

Some of our readers may think that enough has been said about red spider, still it is the only pest in our vineries, and as this season an experiment has been tried a few closing words may not be out of place. First, the nature of the soil in the garden at Loxford is such that the Vines growing in it are pre-disposed to spider attacks; others who have had to do both with light and heavy soils can testify to the same results. In one of the largest and most celebrated gardens in Scotland, I once noticed that the leaves were nearly destroyed by spider as soon as the fruit became ripe, and was told on making inquiry that it was owing to the light sandy soil. Some growers say syringing the Vines with clear rain water; of course, if you are going to syringe, clear rain water is the best, but the purest water will destroy the bloom, and with it the appearance of the fruit when it is placed on the table; and Grapes that have been syringed with the clearest water would have no chance on an exhibition table in London, or anywhere else, if the Judges know what they are about. There are only two ways left to us—either to sponge the leaves with soapy water (every leaf must be done, and only fancy the labour in a large house, and if it is not thoroughly done it will not be a success); or the next, and our experiment this year has again proved it to be the best, that is to sulphur the pipes, and heating them enough to cause the fumes to destroy the spider (see Doings, No. 742).

Late houses require but little attention now. As the fruit is stoning, and but very little growth is made, the roots must not suffer for want of water; a good soaking of manure water is beneficial, but the application of that must be according to the quality of the border and the quantity of roots it contains. Many Vine borders are made too rich at first, and to make matters worse manure water is applied before it is really needed. We are of opinion that turfy loam with but little more added except some crushed bones is the best border. Stimulants may be applied in the form of surface-dressings.

### ORCHARD HOUSE.

All the Strawberry pots have been removed from the shelves, the fruit had been gathered, except some of the Frogmore type. This is a good late sort, and does good service when Queens and Dr. Hogg are over. It hinders very much the proper management of the Peach and Nectarine trees when Strawberries are grown in the house, as many of the trees cannot be syringed for two or three weeks, which gives insect pests a chance to increase.

### GREENHOUSE AND CONSERVATORY.

Having had much to do with exhibiting for the last few weeks some of the work has fallen a little into arrears, but clearing out a few plants that had finished flowering, picking seed pods from Azaleas, and re-arranging is all that has been required. A few words may not be out of place on exhibiting, as it has all been in our work. A contemporary made some remarks in a recent number on exhibiting stove and greenhouse plants. The paper referred to remarks that something ought to be done to promote a change in the variety of plants exhibited, and make some suggestions. If any change is to be made the societies must do it. Exhibitors will always grow and show the plants best adapted to their purpose, and those that remain longest in beauty are preferred. Take *Pteroma elegans*; it is extremely beautiful when well grown, but how seldom it can be brought in at the right time! whereas *Erica Cavendishiana* will remain in beauty for a couple of months, and then how easily it can be moved without injuring the flowers! If the societies wish certain species and varieties of stove and greenhouse plants to be exhibited by way of a change they ought to name, say twenty-four, and ask the exhibitors to show nine or twelve out of them on a certain date, and give all the same chance.

Some small specimens of hardwooded plants have been reported; this is a matter that should not be delayed, as handsome specimens cannot be produced if the plants become pot-bound in the early stages of their growth. The staple material for a vast proportion of the New Holland plants is good turfy peat. Some of them require a little loam mixed with it, others are better with a little leaf mould, but manures in any form ought not to be mixed with the potting material. Thorough drainage is also very necessary. Young beginners frequently have their plants injured before they perceive that anything is wrong. Many of the Heaths are subject to the attacks of mildew, and it requires an experienced eye to notice it in its first attacks, but it must be

destroyed on its very first appearance. Green fly also finds a lodgment in the young growing shoots of some plants, and being of the same colour as the plant they also escape observation until it is too late.

If any increase in the stock of stage and fancy Pelargoniums is required, cuttings put into small pots at once will strike root readily if they are merely placed on the stage near the glass, and they make good flowering plants for next year. Cuttings of the half-ripened wood of hardwooded plants will strike root freely; they should be taken off at a joint and be potted in light sandy soil, the pots to be placed in others, and some sand filled in between the two pots; this keeps an equable temperature for the cutting pot, and the sand forms a resting place for a bellglass, without which the cuttings would not strike roots. The different varieties of *Kalosanthes coccinea* are very easily grown, the cuttings root very freely, and when the plant is in flower it is very attractive.

#### FLOWER GARDEN.

The rains have been a great aid to us in this department. The lawn is quite fresh, and flower beds are filling up well, and except a few *Calceolarias* which always have a tendency to die off in a continued drought, there are no blanks. Pinks are now in full flower and have done very well this year; pipings will be put in of all the sorts as soon as rain comes. In showery weather the pipings may be put in in a shady place out of doors, and they will soon form roots without the aid of glass lights or frames. Our Carnations and Picotees are grown in pots, and as they come into flower are removed to a position under glass where they can be shaded from the sun. Small indiarubber rings are put round the pods of those that are likely to burst. Phloxes are tied to their supports as they progress in growth. The early-flowering sorts are now coming into flower, and the late-flowering section will be in full beauty in August. Spring-struck cuttings will continue the display into September, so that these beautiful flowers are not so fugacious as many persons are led to suppose. Roses are flowering remarkably well: it is necessary to look over the plants every two days to remove decaying flowers. Orange fungus seems to be prevalent this season; we had it once on some young plants sent home from the nursery, but the affected leaves were cut off and the leaves dusted with sulphur. Whether the sulphur was a specific for it was not determined, but not a trace of it has been since seen.

Auriculas require some little attention now. The plants are at their summer resting period, and the larger outer leaves continue to die off, so that it is necessary to remove them frequently, as if they are not removed in time the plants will suffer. Green fly also increases with the hot weather and must be removed with a small brush; the greatest difficulty with us is to find time to do it at this season. Potting should be finished by this time; if not, let it be done at once. It is now a good time to see to the propagation of scarce sorts. Offsets are now forming at the collar of the plants, but in many instances they are covered with the large outer leaves; if so, it is as well to remove the leaf to give the offset a chance to develop itself.

Hardy Primroses are often devoured by red spider, and also suffer for want of water at this time of the year. They ought not to be neglected, or they will not flower well in the spring. Water well, and wash the leaves with a syringe.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

BRIMMINGHAM.—July 1st, 2nd, 3rd, and 5th. Mr. Quilter, Aston Park Sec.  
SPALDING.—July 1st and 2nd. Mr. G. F. Bartell, Hon.-Sec.  
TUNBRIDGE WELLS.—July 2nd. Mr. E. F. Loof, Sec.  
MAREDN.—July 3rd. Mr. J. H. Edmontson, Hon.-Sec.  
BROCKHAM BOSS SHOW.—July 3rd. Rev. Alan Charles and Charles Mortimer, Esq., Hon.-Secs.  
SOUTHGATE.—July 3rd. John Miles, Esq., Hon.-Sec., Southgate, N.  
GRANTHAM.—July 5th and 7th. Schedules, &c., from Mr. Lyne, Bookseller.  
HUNTINGDON.—July 7th. J. Oldman, Esq., Hon.-Sec.  
DURHAM AND NORTHUMBERLAND.—To be held at Elswick Park, July 7th and 8th. Mr. R. Bevely, Sec.  
LEICESTER.—July 7th and 8th. Mr. W. C. Morris, 8, New Street, Sec.  
WINTERTON.—July 7th and 8th. Mr. McCallum, Sec.  
FROME (BOSS).—July 8th. Mr. A. B. Bally, Hon.-Sec.  
KILSEY.—July 8th. Sec., Mr. C. E. Braebridge.  
RICHMOND.—July 8th. Mr. A. Chancellor, Hon.-Sec.  
NOTTINGHAM.—Boss Show, &c., July 8th, 9th and 10th. Apply to Alfred Kirk, Municipal Offices, Nottingham.  
OXFORD (BOSS).—July 9th. Mr. C. B. Ridley, Hon.-Sec.  
GRANGE-OVER-SANDS.—July 9th. Mr. B. Thomas Ashley, Sec.  
HEWORTH.—July 14th. Mr. R. H. Felton, Heworth, York, Hon.-Sec.  
OUDLE.—July 14th. Mr. Alfred King, Sec.  
TUNBRIDGE.—July 14th. Mr. W. Blair, Free Press Office, Hon.-Sec.  
WIMBLEDON.—July 14th and 15th. Mr. P. Appleby, 5, Linden Cottages, Sunnyside, Wimbledon, Hon.-Sec.  
DARLINGTON.—July 16th, at Southend. William Hodgson, Sec.  
BRANLEY.—July 19th and 20th. Mr. R. Fox, Sec.  
BRECON.—July 22nd. Mr. W. J. Roberts, Sec.  
HELYNSBURGH, N.B. (Boss Show).—July 23rd and 24th. Mr. W. Ure, Waddell, Sec.  
CROCKHATON.—July 24th. Mr. S. H. Williamson Hon.-Sec.

BRIDGE.—July 27th. Mr. E. Hardeman, Hon.-Sec. [Hon.-Sec.  
PRESTON.—July 28th and 29th. Mr. W. Troughton, 4, Church Street,  
SHREWSBURY.—July 29th and 30th. Mr. H. W. Adnitt, Hon.-Sec.  
SOUTHAMPTON.—July 31st and August 2nd. Mr. C. S. Fulidge, 33, York Street, Lower Avenue, Sec.

### TO CORRESPONDENTS.

\* \* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

WOODEN LABELS AND PLANT SUPPORTS (*Newport*).—You can obtain both plain deal labels and sticks from Messrs. Blackith & Co., Lower Thames Street, who advertise in our columns. You can paint them any colour you prefer; they are very cheap. Write to them for the information you need.

SULPHATE OF AMMONIA FOR PLANTS (*C. B.*).—It may be used to potted plants and Vines in your greenhouse, but the liquid must be very weak—not more than a quarter of an ounce of the sulphate to a gallon of water.

CULTIVATING SIXTEEN ACRES (*J. H. M.*).—No answer was given. We send a book which gives directions for two acres, equally applicable to the larger surface.

NEW POTATO DISEASE (*B. S., Harrow*).—The specimens you have sent of Early Rose Potatoes are destroyed by the new disease. Your experience that the English varieties are not attacked, though grown with the American, coincides with the experience of other growers.

FUNGUS ON LEAF MOULD (*J. C.*).—It is the common Mushrooms.

MILLERIA BIFLORA (*A. R.*).—Was named in honour of Philip Miller, author of the "Gardener's Dictionary." The name ought not to be degraded to "Milla." The species is called biflora, but there is a variety described in the dictionary as *Milleria triflora*, which is that you have.

MOths (*W. H. H.*).—What kind of moths trouble you? There are hundreds of species.

RATING ORCHARD HOUSE (*A Constant Reader*).—Personage houses are not exempt from being rated, therefore whatever the incumbent does to increase its value must render it liable to an increase of rating. We say nothing in defence of him or them who look advantage of so small an addition as an orchard house.

INCORUSTATION ON FLOWER POTS (*Inquirer*).—The incrustation is due to the pots being badly burned, and the clay of which they are made containing a considerable amount of lime, the clay not having been well tempered. Oil, by preventing water passing through the pots so quickly, will lessen the incrustation. The best thing you can do is to form Portland cement into a thick wash and apply it to the outside surface of the pots with a brush, and give three coats, allowing the first to harden, as it will in a few hours, before putting on the second, &c. You may sprinkle with sandstone the colour you wish, broken up fine and sifted through a hair sieve immediately after the second coat. It will not interfere with the growth of the Ferns, the drainage being good.

PLANTING STRAWBERRIES FROM POTS.—RUNNERS FOR FORMING (*A Subscriber, Cork*).—Plant those from pots in rows 2 feet apart, and if they are Keens' Seedling, or any early sort of moderate growth, 18 inches apart in the rows; but if President, or a similar kind, they should be planted 3 feet apart in the rows. The ground having been well manured in winter will not require any at planting, but the soil you name would be beneficial—a peck to 80 square yards. Make the soil very firm around the plants, and give a good watering after planting. Runners may be taken off plants which have been forced, but they will need to be layered in small pots and had well rooted before being detached from the parent plants. It is better, however, to layer in smaller pots runners from plants in the open ground, they being stronger and more free from red spider.

FUCHSIA LEAVES PUNCTURED (*A Cork Reader*).—The leaves are eaten by some weevil or caterpillar, which you may probably ascertain by examining the plants, and especially at night, with a lantern; or you may syringe them with a solution of soft soap, 2 ozs. to a gallon of water, which will destroy any thrips and red spider, of which there are traces, and make the leaves distasteful to the pests. The plants are weak, and would be the better of more moisture, sprinkling overhead every evening, and affording slight shade.

FUCHSIA (*W. R. C.*).—They being stopped a fortnight ago will not require to be stopped again for blooming at the time you require; they, with ordinary greenhouse temperature, will be quite early enough. Give them weak liquid manure, and sprinkle overhead every evening, and afford slight shade from bright sun. It is essential that the foliage be kept fresh, therefore keep a sharp look-out for thrips and red spider.

PREVENTING ONION MAGGOT (*Idem*).—Dress the ground prior to sowing with gas lime, spreading it evenly, and at the rate of a peck to 80 square yards, allowing it to lie on the surface for a few days, and then point in with a fork. If for this year you wish a remedy, dress at once with guano, two parts to one of salt, and at the rate of a peck to 80 square yards, applying it in moist weather only; or it may be applied in a liquid state, 1 lb. to twenty gallons of water, and this at the rate of four gallons per square yard, which is nearly equal to an inch of rainfall.

EMBOTHRIUM COCCINEUM (*A Cork Reader*).—The leaf sent appears to be that of this plant. We can only account for its not flowering from its not having a sufficiently warm situation so as to ripen the wood, the shady position inducing to vigour, and that may cause the divergence in the appearance of the plants to which you allude. It requires a warm exposure, and only moderately rich soil.

REPORTING AZALEAS (*W.*).—Pot them at once, the flowering being past, and place them in a house with a brick and moist heat, shading from bright



sun, syringing twice a day, and keeping up a good moisture by frequent sprinkling of the paths and every available surface with water, and in this way secure a good growth, and when this is complete and the buds set remove to a cool and airy house, keeping as cool as possible. We do not advise their being placed out of doors; it is not desirable, or only for kinds which have made their growth and have the buds set early from being forced, and those may be placed outdoors and in a partially shaded position any time after the middle of June, returning them to the houses again at the close of September.

**CYCLOMENS AFTER FLOWERING (E. C. O.).**—Plunge the pots in ashes in a slightly shaded position, and to the rim of the pots, and unless very dry they need not be watered, as the moisture absorbed by the pots from the ashes will be sufficient for them; all they need is to keep the soil moderately moist. At the end of August they should be potted and placed in a cold frame kept rather close, moist, and shaded from bright sun, removing to a greenhouse at the close of September.

**TAKING UP HYACINTHS (Idem).**—Take them up when the leaves turn yellow, and lay them on shelves in a dry airy shed, and when they are thoroughly dried, clean and store away in shallow boxes in dry sand. Tulips, &c., may be treated in the same way.

**DESTROYING WOODLICE (Agriola).**—We do not know in what way you can further proceed against these troublesome pests, having tried hay and scalding them. We presume you have tried the old and good plan of a boiled potato wrapped in a little hay and placed in a flower-pot laid on its side in their haunts, examining it in the morning, and shaking the woodlice, which will be secreted in the hay around the potato, into a bucket of boiling water. A number of these baits will thin the woodlice considerably, and so would a few toads placed upon the bed. A wholesale means of destroying these pests other than by boiling water, which cannot always be used without injury to the roots of the plants, is much needed.

**"DUCKOO SPIT" (Idem).**—It is very common this season, a consequence, probably, of the long-continued drought. A solution of soft soap, 2 ozs. to a gallon of water, will destroy the insect; but as it is mainly fixed to the under side of the leaves, it is necessary that the solution reach those parts, and be forcibly applied so as to wet the insects with the solution.

**GROWING CUCUMBERS IN VINERY (Ignovimus).**—The return you have from the Vines is certainly very little, and would be insignificant as compared with Cucumbers. They will grow the length you name, and give you fruit from the bottom to the top of the rafters, taking care to train-in side shoots, and to stop one joint beyond each shoot of fruit.

**PROPAGATING CLEMATIS JACKMANI (M.).**—Short ripe side shoots put in now or up to the middle of August under a handlight in a shady border and in sandy soil will strike safely, or layers may be made at the close of September, but they will not be well rooted until the autumn following, by which time they will be good plants.

**HYBRID SOLANUMS (Somerset).**—Keep them in the vinery and near the glass, and not shaded, and, if possible, near where air is given, or remove to a light airy position in the greenhouse. Six-inch pots will be sufficient for the plants the first season, and those they should have when the 4-inch pots are filled with roots. They may be stopped to induce a neat pyramidal habit, but beyond this they will not need much stopping.

**GREENHOUSE PLANTS FOR WINTER (Idem).**—Primulas and Cinerarias which you have are the best, but equally desirable are *Cyclamen persicum* var. *Tree*. Carnations are also very desirable. You should have some *Chrysanthemums*, which are easily propagated and grown. Fancy *Pelargoniums* would not flower well in autumn and winter, but the best of the seasonals will fit out now; the cuttings of these will also bloom in the winter months.

**PROPAGATING CAMELLIAS (Double White).**—The double varieties do not do well upon their own roots, mostly growing too weakly. The best time to put in the cuttings is when the wood of the current year has become nearly ripe, which will be the case by the end of June or beginning of July, when they will have the wood firm, but not thoroughly ripe, and taking them of 4 to 8 inches in length, cutting transversely just under the lowest leaf, removing it and the next, and insert them around the sides of pots well drained, and filled with sandy loam sifted rather fine, and put into the pots firmly, and they may be put in rather thickly, and stand the pots in a cold frame kept close by day and with a little air only at night, and shaded closely from sun. It is necessary that they be kept moist, sprinkling them in the morning of each day lightly. In about two months they will be rooted, but we should not pot them off singly until the middle or close of September, and in 8-inch pots, in sandy loam and peat, and return to the frame, keeping rather close, moist, and shaded until the close of October, then remove to the greenhouse.

**BUDDING ROSES (E. M. Major).**—You may bud them during the present month. We cannot name varieties of Roses or of any other florists' flowers.

**INSECTS ON HONEYSUCKLE LEAVES (W. Smart).**—The objects sent by you as "pupa cases" are the empty eggshells of one of the many species of *Belg bug* (*Pentatoma* sp.), and the small dark-coloured objects are the newly-hatched young bugs.—I. O. W.

**SELECT CARNATIONS AND PICOTEES (Cactus).**—We can only name a few. Carnations: *Scarlet Bizarres*.—Campanini, Dreadnought, Duke of Edinburgh, Mars, Invincible, and Guardaman. *Grimson Bizarres*.—Marshall Ney, The Lampfighter, Graceless Tom, Colonel North, Eccentric Jack, and Gem. *Pink and Purple Bizarres*.—James Taylor, Purity. *Purple Flakes*.—True Blue, Ajax, Dr. Foster, Earl Stamford, John Robinson, Mayor of Nottingham. *Scarlet Flakes*.—Christopher Sly, Superb, Marshal St. Arnaud, John Bayley, Illuminator, and Annihilator. *Rose Flakes*.—Mr. Martin, Illustrations, Mrs. Frederick Burnaby, Phœbus, and Sybil. *Picotees*: *Red-edged*.—Colonel Clerk, J. B. Bryant, Leonora, Lord Valentia, Mrs. Hornby, Mrs. Keynes. *Purple-edged*.—Mrs. Little, Norfolk Beauty, Edith, Venus, Admiration, and Mary. *Rose and Scarlet-edged*.—Edith Dombtrain, Julliana, Mrs. Allerott, Ethel, Duchess of Edinburgh, Mrs. Fordham. *Yellow-ground*.—Goldfinder, Gold Button, Sovereign, Seraph, Empress of India, and Claude.

**OPUNTIA CYLINDRICA CRISTATA (Idem).**—It is not particularly rare, but is not a very common kind; in fact, succulents cannot, except in a few sorts, be considered common, they being grown to only a limited extent in most gardens.

**WHITE FLOWERS FOR FUNERAL WRATHS (E. H. G. P.).**—Stove.—*Clerodendron Balfourii*, O. Thompson, both flower March to June, and more or less up to autumn, they have a portion of red in the flower, but that may, if objectionable, easily be removed; *Eucharis amabilis*, May and autumn, sometimes early in spring; *Gardenia citrifolia*, March; *G. florida*, April, May, and June; *G. radicans* major, June and July; *Hoya bella*, June onwards; *H. carnea*, June and July; *Ixora soumaria*, June and July; *Jasminum gracile*,

May onwards; *J. Sambac* flore-pleno, March onwards; *Stephanotis floribunda*, May and June; *Tabernaemontana coronaria* flore-pleno, winter. Greenhouse.—*Bouvardia candidissima*, Davisonii, Humboldtii corymbiflora, The Bride, Vreelandii, winter and spring; *Carnation La Belle*, The Bride, Avallanche, Queen of Whites, winter and continuously; *Citrus aurantium*, C. japonica, April and May; *Cyclamen persicum* album, winter and spring; *Daphne Indica* alba, spring; *Draophyllum gracile*, May and June; *Epaen The Bride*, winter and spring; *Erica melanthera*, spring; *Eugenia Ugni*, April; *Jasminum grandiflorum*, spring and autumn, *Kennedy ovata* alba, April and May; *Mandevilla suaveolens*, June onwards; *Myrtus communis*, May and June; *Primula cortusoides* alba, April; *P. sinensis* alba plena, *Rhododendron jasminiflorum*, May; *Rhynchospermum jasminoides*, May and June; *Solanum jasminiflorum*, summer and autumn; single and double white *Violets* will in pots bloom most of the winter in a greenhouse, and *Lily of the Valley*, *Deutzia gracilis*, *Spiraea japonica*, S. Thunbergii being valuable in spring; so are white *Asaleas* as alba, Borsig, Comtesse de Ribencourt, Fielder's White, *Narcissiflora*, and *Beine des Blanches*. Invaluable for winter are *Everlastings*, "Immortelles," as *Azodolium album*, *Ammobium alatum*, *Gomphrena* alba, *Helichrysum bracteatum* album, *H. monstrosum* album flore-pleno, *Helipterum corymbiflorum*, *Rhodanthe maculata* alba, and *Xanthanemum annuum* album flore-pleno.

**TODEA SUPERBA (M. D. C.).**—It should be lightly sprinkled overhead morning and evening, and in a very moist and rather close atmosphere does not require a glass shade. It will do well enough over water, but not with the pot stood therein, being impatient of stagnant water at the roots.

**ARMORHA JAPONICA VITIFOLIA—HONORINE JOBERT (Idem).**—The plant usually does not flower until late in summer, and continues a long time in flower. Being very vigorous it will probably bloom finely in August and up to frost. A. japonica and var. are fine in late summer and autumn, and are deserving of extended culture; they have in addition to fine flowers a handsome appearance in mixed borders from their foliage.

**NEOTOPTERIS NIDUS (A Young Exhibitor).**—It is not a tree Fern. It is the *Asplenium nidus* of Linnaeus.

**DISEASE IN AMERICAN POTATOES.**—"W. H. A." informs us that it is attacking them in north Lincolnshire, and did the same last year. He asks what was the parentage of Sutton's Red-skinned Flourball Potato. It is very similarly attacked.

**POPLAR BLEEDING (J. Keenerts).**—Seal the wound thoroughly with a red-hot iron, and then paint over the charred surface with painters' knotting; that is the paint painters use to prevent the resinous exudation from the knots in deals.

**NAMES OF PLANTS (A Constant Reader).**—We cannot name plants from their leaves only. (G. B. C.).—We cannot name the varieties of *Roses* even, they, like all other florists' flowers, are too numerous and alike. (*Lady King*).—A *Geranium*, specimen insufficient. (*Rev. S. A. Brennan*).—Apparently *Rosa gallica*, but this is not an Irish plant. A note as to the circumstances of its occurrence would be of interest.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### SCENES AT THE CRYSTAL PALACE DOG SHOW.

WHEN at the Croydon Show I suddenly remembered that the Dog Show at the Palace was at that very time going on. Indeed, it together with the Ialington Horse Show helped to account for the thin attendance at the Bath and West of England Meeting. I was determined to make for the Dog Show, so reaching Sydenham station, I walked with an old poultry friend from thence to the Palace. And, oh! dost thou love a pretty walk, good reader in early summer? If thou dost and art near London take a ticket to Sydenham and do as I did, and let the time be when the lilacs and laburnums are in bloom. I passed along pretty broad roads, with peeps every now and then into villa gardens—fine large gardens, not mere scraps of earth, and villas well built, and large and mansion-like. The day was what we look for in "leafy June," not yet broiling summer, and May's chilliness gone. Alas! that the poetical May should, usually by the east wind, be rendered such a fib. I passed on, meeting groups of healthy children with their nurses. And what a test of a neighbourhood is the appearance of the children in it! There is no truer test. The poverty of a place is seen staring-out at you in the children's pinched cheeks and thin limbs; while well-fed little ones—with round faces and deep dimpled-chins and clean attire, as surely tell us that we are in a well-to-do part of England. I passed on and entered the Palace grounds towards the lower part of the park, and walked upwards through its grounds and gardens to the Palace. How beautiful are these grounds and gardens! The Palace may disappoint, part being gone, and many portions look shabby and worn. The vaulted courts look dull, and their monumental designs show cracks and flaws. But the gardens are better and better, the view still as grand, the shrubs each year grander. How better is nature than art—the former never can be vulgarised, the latter often is. The grand dreams about the Palace have long since passed away. It is a place of shops, and not very high-class amusements; but its situation is grand, its garden and park beautiful.

I reach the terrace just as the fox terriers are being judged, a class of dogs particularly to my fancy. The owners of the dogs now, I see, as a rule, are in attendance with their pets, and they no longer suffer servants to hold them. The ring of dogs is large, but gradually grows smaller as the least deserving in the eye of the Judges are weeded-out. The dogs are, as a rule, admirably shown, and there are fewer over-large animals. Tight, trim, neat and rather small dogs are favourites—dogs that

can work, and whose size does not prevent their entering into a fox's earth. There were also some with great beauty showed also many scars on their faces, thus clearly proving them to be, not mere pretty-shaped pets, but true plucky workers. The sight on the enclosed spaces on the terraces and slopes above was very pleasing to any lover of dogs. The rings of dogs below with the Judges in their centre; then on the slopes the many interested lookers-on. How nervously anxious were the owners. Exhibiting must be a trial to the nerves, for I notice that conversation with an exhibitor prior to the judging is but on his part broken sentences, the one thought, "Oh! shall I win?"

Later in the day I went into the Show itself, and I must say that it far excelled any exhibition of dogs which I had ever seen. Its freedom from offensive smells proved that the care of the managers was great. Evening was now coming on, the inside was getting dim, the poor animals were inclined to quietness and sleep, and no exciting gas as at Birmingham had been lit. Coming to the middle portion of the Show I see a small crowd moving forward, pushing towards the centre; then there are cries of "Stand back, stand back, room!" Surely, surely, it is not a dog fight at a dog show—not the old cruel sport—these are days of gentle fancies, and wicked sports happily do not go unpunished. The crowd grows larger, there is a wonderful attraction in a moving crowd gazing at some central object or objects. I am drawn into the whirlpool, and have made up my mind to call in the police and stop the fight, and write about it to the "Animal World." I am in the crowd now, like the rest, I am on tiptoes actually, and as the penny-a-liner would say also, "On the tiptoe of expectation." I force my way nearer the centre, I plainly see ladies are near enjoying the scene. "Oh! this is worse than Hurlingham! How had these women of modern days are! Ladies enjoying a dog fight, for I am sure there are dogs and ladies too. Oh! fie for shame!" Still nearer I get. I can see more now. Why, there are hair brushes in the air. What can it all mean. I press nearer—hair brushes the best that money can buy, new and clean. It is surely an exhibition of ladies' hair as grown on the head to prove that all is not false. This is a good idea, and I will see which girl wins—which has the longest, and thickest, and loveliest home-grown production. I get nearer to gaze on the fair heads to see them pass the smoothing brush over the black, or the golden, or the auburn, or the fair flaxen, as the case may be. I see the brushes and the hands—small and delicate, moving rapidly. I am in the centre now, and oh! no dog fight, no lady's-hair prize, but lady owners are giving the last brush to their Maltese dogs before they go into the hands of the Judges, who stand close by. The texture, gloss, and exact parting of the dog's hair down the line of the spine were really wonderful. The best seemed like creatures clad in spun glass or floss silk, and no lady's hair was more evenly parted.

By the way, the Judges of these classes ought to be old, very old, and rather spiteful bachelors, or unfairness might arise. Thus, say a very pretty bright-eyed lady with a coaxing smile held up her dog beside a bony, hard-featured, withered, woman's-rights virgin, would it not be human nature, or rather "man" nature without the "hu," to give the prize if possible to the dog owned by the fair lady, and to receive in return such a smile? So to correct the balance I would say, Let the dogs be held only by the attendants at the show, or let the Judges be the crustiest of old bachelors, and, if possible, let them be suffering from suppressed gout at the time. I have noticed the sufferings of gentlemen exhibitors, but theirs were nought to those of the lady exhibitors. I marked such pale cheeks of anxiety, lips bitten hard (lips meant for a better fate), muscles twitching, and a whole demeanour marking the combat going on between hope and fear. Verily I am glad I am not an exhibitor.

All is over, the Judges' decision is given, the little crowd breaks up only to gather again around the owners of the Blenheim Spaniels. Again the same scene, again the ladies and their dogs—their pretty Blenheims, vastly superior to my taste to the Maltese; but tastes differ, and right they should; and that tastes differ is never more plainly seen than at this dog Show. Perhaps its ample provision for taste of all kinds is one great element of its success, for successful most certainly it was.

—WILTSHIRE RACTON.

### OUR SPRING HATCHING.

I ~~see~~ reiterated this week in the Journal the failure of chickens this season, and was expecting to have seen answers from those well experienced to your invitation regarding the effect of frost or cold upon eggs, but being in this respect disappointed, I venture to give my experience, though a young amateur.

I only commenced keeping fowls this season, and being a novelty my children were so delighted at obtaining the eggs that they were all gathered immediately, or soon after, being laid and brought into the house, and I found nearly every egg that was set—and I set a good many during the cold spring—were with scarcely an exception all prolific, and in the spring was very successful in rearing the chickens. Since then

I have not been so successful. I must, like other amateurs, learn by experience. My hens became uncomfortable and left their eggs just before hatching, and I have only recently discovered the cause—their becoming troubled with insects, which I attribute to having moistened the eggs with water. I do not consider this requisite, and shall discontinue the practice until I have proof of its necessity, for, as someone pointed out in a recent number, hens at large will as often make their nest in a dry loft as by a damp hedge-side. I had taken the precaution of putting cinder ashes under the nests, believing this would deter insects. For the future I shall be able to combat with this difficulty, but should be glad at the same time to receive hints on the subject.—WAVERTREE.

### POULTRY SHOW SCHEDULES.

GREAT GRIMSBY has its Show on July 21st, 22nd, and 23rd, in connection with the Lincolnshire Agricultural Society. The schedule is almost the same as last year; though good in some points, it is still open to immense improvement with the same expenditure in money. Dorkings have one class with four good prizes. Game have two classes and seven prizes, Reds coming off very well indeed. Brahmans and Cochins have only one class each with three prizes. Why will committees be so foolish? No classes fill like the Brahmans. Hamburgs have two classes only with four prizes. Houdans and Crèves have each a class, and there is one for Poland. There are two Selling classes for cocks and pairs of hens with handsome prizes. Turkeys have a class, also Geese, and Ducks three, and we are glad to see a class for Guinea fowls. Entries close July 8rd. The fee is 3s. 6d. a pen. Judges "competent," but nameless, are to award the prizes. When will committees see the folly of their ways? We see nothing about baskets in the rules, so we suppose double and single may be used.

NEWELL (near Burton-upon-Trent) has its Show on July 21st. It is quite a miniature affair. We are sorry for this, because this is the Society we believe which had its Show at Horninglow in 1873, when the schedule was quite imposing. There was a falling-off last year, but this season they have come down to 12s. 6d. and 7s. 6d. prizes. We are very sorry for this, as we have pleasant recollections of the 1873 exhibition. As far as the schedule goes the classes are fairly distributed, and Cochins and Brahmans fare better than they do at Great Grimsby. The entry fee is 2s. 6d. Baskets are again left open as to description. The Judge's name is not announced!

CASTLE DONINGTON holds its floral fête and poultry Exhibition also on July 21st. The schedule is most peculiar. There are classes for all kinds of breeds, with two prizes in each of 10s. and 5s.; and a special prize, the value of not less than £1, is given to every two classes. We wonder whether these "specials" will much exceed the £1, and whether they will be paid in hard cash or in little useless articles. We almost think we must try and win one of these "not-less-than-£1" prizes, and see what we shall draw from the lucky bag. Cochins have six classes and three of these specials; while Brahmans four, and Dorkings two; Houdans, Spanish, and Bantams each have two classes; Game and Hamburgs four each. There is a class for chickens of this year of any breed with four prizes. Ducks, Geese, and Turkeys all have classes. We rejoice to come at last to a schedule where the "gentlemen of acknowledged ability" have names. Here they are to be Rev. T. O'Grady and Mr. Hutton. Non-subscribers pay 2s. per pen, but a subscriber of 5s. only 1s. per pen, which is most reasonable. Entries close on July 14th. Nothing is stated about baskets.

THE ORMSKIRK and SOUTHEAST Society meet this year at the latter town. This is one of the first chicken shows of the year, and we shall watch the results with interest. The prizes are £2 and £1 in each class, and there are classes for old birds and for chickens of the year. We are very glad to see White Dorkings have their two classes. There is no class for Black Hamburgs, which surprises us, and White Cochins are pushed off to the Variety class, and we hope the insult will be returned by not one pen of the breed appearing at the Show. Entry fee is 2s. to subscribers, and 5s. to non-subscribers. Entries close July 13th. Post entries, with extra fees, will be taken up to July 19th. The names of the Judges are not given, and we see no mention made of baskets. There are two £5 cups, one for Game and one for any breed not Game. The Pigeon department is good. There are three prizes in each class, and five point prizes besides. It is the single-bird system, and the entry fee is 8s. per pen. Carriers have four classes, and one for birds bred in the year, as, too, there are classes for 1875 Dragons, Barbs, and Antwerps. There are classes for English and foreign Owls, but Tumblers and Turbits have only one each.

THE ROYAL MANCHESTER Society meet at Preston this year. The schedule is a fac-simile of the one at Stalybridge last season. The prizes are very handsome—£3, £2, and £1 in each class. The Show is for 1875 birds only, and the classes are well and fairly distributed; but we much regret to see the Silver-Gray Dorking class of 1873 again is omitted, and that no

inducement has been held out to White Cochins. Buffs and Partridges are well looked after, but Whites are sent to the refuge. This must be wrong. Geese have two classes. The entry fee is 3s. for subscribers, and 6s. for non-subscribers. The Judges' names are not announced, but we generally find the right sort here. Again the basket subject is not mentioned. We hope this is a general dawning of better days, and that committees, while cutting out the old rule of separate hampers being necessary, leave it to the exhibitors' taste to use double or single packages.

NEWBURY (Berks) has a "grand Exhibition of poultry and Pigeons" on August 24th. The schedule is good, but not grand. We hope, however, the anticipated display will be grand, and so make this young Show worthy of its title. There are three prizes in most of the classes, and four £5 silver cups. Dorkings, Brahmas, Cochins, and Hamburgs have two classes each, but Game only have one. Polands have a class. There is a class for 1875 chickens with good prizes. Ducks have three classes. The Pigeons are well classified, but the prizes are so poor that this department can only be local. There are also local poultry prizes, which are arranged in a new way, and in a manner we would especially recommend to those committees who go in for local classes. The entry fees are 3s. 6d. and 2s. 6d., and the entries close on August 9th. The names of the Judges are not announced, but they are to be of "acknowledged experience;" and the old basket system is in use here, we are sorry to say.

BRECKNOCK holds its annual Show of poultry, Pigeons, &c., on August 25th. It is a fair schedule, and most of the chief breeds have three prizes in each class. Game have three classes, and there is one, too, for Polands. There are for 1875 chickens two classes—one for the large breeds, and one for the smaller. We are glad to see a cottagers' class, and hope it will be well supported. The Judge is announced—viz., Mr. Hutton, but each pen must be in a separate basket. Entries close on August 10th, the fee being 3s. 6d. There is a severe rule against trimming, which we give in full, as others may like to copy it in their schedules:—"11.—The Judges will be specially instructed to disqualify and mark any pens of birds they may discover trimmed or altered in character for the purpose of exhibition (except the dubbing of Game cocks). In case of any such disqualification duly certified under the hand of the Judges to the Committee, all the pens of the same exhibitor throughout the Show will be also disqualified on account of such fraud; and both the penalty and the reasons for it will be stated in the prize list, and notice thereof legibly affixed to the front of the said pens. These notices will be maintained throughout the Show, and anyone found removing or defacing them will be given into the custody of the police." The Pigeons have only 15s. and 7s. prizes. There are eleven classes, one of which is for Nuns. The entry fee is 2s. 6d. per pen.—W.

### THORNE POULTRY SHOW.

Is it usually the custom to allow birds to be removed from the show pens during the Show? At the recent Thorne Show I observed in Classes 77 and 78 (the awards were not then given to those particular classes) several vacant pens. In Class 77, which had eight entries, only three birds appeared; heavy showers were falling, and these three birds were more or less wet and dispirited, so that it was not surprising when the prize-list appeared that the honours were in more than one case taken by birds which had not borne the brunt of the storm. Among the birds thus exposed to the weather, and subsequently passed over unnoticed, were some which had taken high honours at the Palace and other shows, and might no doubt on this occasion have presented a different appearance had they shared the advantages of their rivals. In addition to the unfairness, it is a great disappointment to fanciers who go to see the birds, and find some of the best pens removed. I am told that after the judging some fine birds were removed from other classes, and visitors had only the pleasure of seeing the prize card and the empty pen.

The rule in the schedule is that birds were to be penned at 10 A.M., but after eleven o'clock I saw poultry hampers admitted at the gates of the show ground, giving great advantages over exhibitors who had been obliged to send their hampers the night before.—E.

[We have for many years past uniformly protested against poultry shows being held in open grounds, as a certainty of fine weather cannot in our variable climate be ever depended upon. At Thorne the poultry and Pigeons were arranged under the shade of high trees, and when the heavy thunder storms prevailed most of the visitors betook themselves to the shelter of refreshment tents, &c. Some few of the exhibitors who travelled with their birds were prepared against such an exigency with oil-sheets, and consequently their pens were protected from the positive downpour, as were a few pens that happened to be under those trees that had the most abundant foliage; but we cannot say whether or not any of the birds were temporarily or finally taken away during the Show time by their respective owners.

It is only a short time since we heard of a man in charge of poultry stripping himself of both his coats and his waistcoat to protect his birds, and the result was, to use his own words, "I got the cup by it, and the worst illness I ever had in my life!" We again say, Shows without covering are altogether a mistake.]

### DARI.

SOME of your friends are asking about dari. I beg to say my attention was first called to this corn seed three years ago. I was at the time keeping Gold Pheasants, Black Bantams, Houdans, and Black Cochins. Finding all the birds did so well on it, particularly the Pheasants and Bantams, I was the means last season of inducing two or three of our large breeders of Pheasants and Partridges to give it a trial, although they had an exceptionally good season. They were not at the time at all willing to give any credit to the feeding on dari. Evidently a change has taken place in their views, for within the last fourteen days I have been solicited to obtain for them, if possible, a few quarters of the stuff I was so kind as to send them last year.

I cannot speak so positively as Mr. G. Riley does of its egg-producing properties, but for keeping birds in good health and feather I never used its equal. Pigeons and Doves are delighted with it, but should only have it on high days and holidays, they eat it too ravenously. My experience is that it should only be given very sparingly, and not oftener than twice a week.—JAMES ELGAR.

### THIRSK SHOW OF POULTRY, &c.

THE sixth annual Show was held at Thirsk on the 23rd of June, and the day proving, unlike that of last year, very fine, it was a success in all respects, and for the amount offered in prizes the entry for poultry was something extraordinary, and it is our opinion that if a real good prize-list were offered by this Society, such is its popularity that a most excellent show would be the result. On this occasion there were about 240 entries for 10s. and 5s. for poultry, and 5s. only for Pigeons.

Dorkings were a very good lot, and all Dark Greys; Game poor, and Spanish a fair lot. Pen 887 were a grand pen of Buffs, and well placed, the other noticed birds standing well. Brahmas all Dark, and a pretty good lot. Only the winners in Gold-spangle Hamburgs were deserving of notice, and in Silver-spangles the three noticed were only of quality, but these were good. In Gold-pencils the first was a grand pen, the second a better cock, but rather wild, and the hen not equal to him. Silver-pencils only moderate, while Black Hamburgs and Polands were good. Black Bantams were the best class in the Show, many pens being really excellent. In Game Bantams Mr. Steel's pens were empty; there were some good pens, but the majority were not good. In the next class the first were capital Silver Sebrights, second being Gold. In Ducks, Rouens were a fair class, an extra second being given; Aylesbury good, while in the Variety class Black East Indian of only poor quality won. Turkeys and Geese were each fair lots, and Guinea Fowls really good. In the Selling class a fair pair of Black Red Game were first, and Gold-pencils second; and in the Variety class the first were Sultans, and second Malays. A class for chickens of any variety was provided, the winners being Gold-pencils and Dorkings.

In Pigeons there were forty entries, only one prize in each class being offered; the Jacobins, Fantails, Owls, and Dragons proving good, the latter especially, a pair of Reds, being a really grand pair.

DORKINGS.—1 and 2, J. White, Warlaby, Northallerton. 3c, A. Jackson, Broughton, Northallerton; T. Newbald, Clifton, York.  
GAME.—1, G. Carter, Bedale. 2, Holmes & Young, Driffield. 3c, Lister and Pounder, Seaham, Yarm; J. Cass, Hovingham, York; G. & T. Kidson.  
SPANISH.—Black.—1, C. W. Jefferson, Northallerton. 2 and 3c, G. Pounder, Kirby Moorside. 4, Rev. H. Hawkins, Topcliffe, Thirsk; T. Flintoff, Newby, Stockton-on-Tees.

COCHIN-CHINA.—Buff.—1, Urwin & Ibbeson, Whitby. 2, J. North, Fartown, Huddersfield. 3c, Lady Bolton; J. North. Partridge.—1 and 2, J. Bell, Thirsk.  
BRAHMA POOTRA.—1, T. P. Carver, Langthorpe, Boroughbridge. 2, E. Williams & Son, who, G. B. Bell, Layton, Caulwell, Darlington. 3c, Lady Bolton; Miss Jacques, Richmond.

HAMBURG.—Golden-pencilled.—1, R. Keenleyside, Aycliffe, Darlington. 2, Holmes & Young, Driffield. 3c, T. P. Carver; G. Garbutt, Sinnington, Pickering. Silver-spangled.—1, Holmes & Young. 2, G. Garbutt. 3c, Wells & Sherwin, Ripon.

HAMBURG.—Golden-pencilled.—1, T. P. Carver. 2, J. Newbald, Clifton, York. 3c, A. G. Mitchell, Bishop Auckland. Silver-pencilled.—1, W. Bearpark, Northallerton. 2, J. Cass.

HAMBURG.—Black.—1, T. P. Carver. 2, G. Slater, Fairlawn, Ripon. Polands.—1 and 2, G. Walker, Boroughbridge. 3, W. Bearpark.  
BANTAMS.—Black.—1, E. H. Ashton, Mottram, Manchester. 2, T. P. Carver. 3c, J. H. Cartwright, Willington, Durham; Rev. H. Hawkins, Topcliffe, Thirsk. 4, Wells & Sherwin, Ripon; J. North, Fartown, Huddersfield; A. G. Mitchell, Bishop Auckland.

BANTAMS.—Game.—1, W. C. Dawson, Whitby. 2, Wells & Sherwin. 3c, W. Gray, Tow Law, Darlington; Holmes & Young, Driffield. White, or any other variety.—1 and 2, T. P. Carver. 3, T. Harter, Thirsk. 4, W. Richardson, York.

DUCKS.—Rouen.—1 and 2, G. Garbutt, Sinnington, Pickering. 3, T. P. Carver. Extra 3, W. J. Wetherill, Whitby. Aylesbury.—1, J. Arrowsmith, Kilmington, Thirsk. 2, T. P. Carver. Any other variety.—1, G. Sadler. 2, J. Arrowsmith.  
TURKEYS.—1, Miss Kirk, Givendale, Ripon. 2, C. McC. G. Swarbrick, Sowerby Thirsk.



at present will not enter upon it beyond saying that, with a view to have more light, I am also prepared to give Dr. Morgan, or anyone else, £50 in money or plate who works out the problem, either forwards or backwards, in accordance with the terms stated in Mr. Huie's letter.—Gmo. Urm.

### HOW I OBTAINED MY BEES.

It is fourteen years since I lived with a gentleman who kept bees, since that time I have seen but little of them. On the 5th inst., at 11.30 A.M., I was going from one part of the garden to the other (which is about thirty acres), when one of the men called to me, saying "Here's a swarm of bees." He was knocking a beet-tin with his hoe. He called it "ringing them down," a very common thing in Lincolnshire. So I ran to a house 500 yards off where they kept bees to see if theirs had swarmed. They had only one stock hive, and it had swarmed a few days before, and the swarm had gone into an empty hive, where the bees had died during the winter, standing by the side of the parent hive. So I borrowed a hive of them, a common straw skep 13 inches across by 12 inches deep. I ran home for a glass of beer and some sugar and some fennel, and rubbed the hive with the mixture. When I returned the bees had alighted on a straight piece of the thorn hedge, so I pulled it down and gave it a good shake and turned it down under the hive. I did not even get stung.

Off I went to my employer to tell him and ask him for the bees, as I am only garden bailiff here, and did not like to take them away of my own permission. He gave me consent, so at night I wrapped-up the hive in a sheet and carried them home. On the 8th I weighed them, and the hive altogether was 10½ lbs. My friend weighed two of his empty hives, and they were 5 lbs. 6 ozs. I have given them 1 lb. of sugar with cold water, a little every day up to the 17th, and at night I turned them up to look at them. They appear to have filled the east side of the hive from the middle nearly to the bottom with beautiful white comb. They go laden in, some with yellow and some with a very dark pollen on their legs. There was a drone went in yesterday (June 17), the only one I have seen. I suppose it is a first swarm by its being so early as the 5th of June. To-day I boiled a pint of water and 1 lb. of white sugar together, and poured it into two jars, and put a bit of round wood with a lot of holes in it to float on the top, and by dinner-time they had cleared it all up.—J. M., Lincolnshire.

### SWARMING.

In reading over Mr. Pettigrew's article on swarming I am fairly put to bay, inasmuch as that I am doing all I can to prevent my bees from swarming to insure first-rate stocks for next season, and, as I hope, good early swarms. But where is the use of these good early swarms if—after filling their hives, and we will premise all supers as well—through their industry the hives are too well filled with honey to be of much use for stocks for the ensuing season? I know of two straw hives, 21 inches diameter, quite full and heavy (as much as I could lift comfortably), and the swarms had only been hived a fortnight; then a nadir was placed under each of them, and if the proprietor only reaps the benefit of that nadir from each this season he will have no need to go to the stock hive for more. What is more difficult than to extract one or more bars from a stock hive that is full of bees? Am I to understand that Mr. Pettigrew advocates at a certain time after hiving the driving of a swarm from its then stock hive into another artificially, extracting the honey and comb from the first, and then returning the swarm to recommence their arduous labours, to rebuild their home, and re-stock it with a supply for their winter use? He likewise states that hives with 20 or 30 lbs. to spare in spring, in which the bees have been fed during the winter, do not yield large swarms. Now, by this I conclude that it would be best either to give the bees so much food that the hive shall not be increased in weight very much—that is, if food be found wanting, by weighing the hive; or to deprive them of at least 20 lbs. of honey, say in March. One would almost think that a hive strong in bees and heavy with honey would be the most valuable and most likely to yield a good return at the honey harvest by a goodly supply of supers. I have always understood the cry to be "feed! feed! feed!" late in winter and early in spring. Now, if we do, and the bees collect in food and honey 20 to 30 lbs., we sacrifice large swarms; if so, what course must be adopted to ensure that?—J. H. HOWARD.

[Mr. Howard has read my remarks very intelligently, and has stated his difficulties clearly enough. I am glad he has done so, for they will enable me to explain more fully the points noticed by him, which are important. We maintain that by the swarming system of managing bees better stocks for keeping can be had than on the non-swarming one. Let us suppose that Mr. Howard has two stocks ready to swarm about the end of May; ten days sooner or later will not disturb the argument. One stock yields a swarm which may be housed in an 18-inch hive;

the other is prevented from swarming by the use of supers, ekes, or a nadir. If supers be used the hives will be pretty well filled with honey, and the breeding space much contracted before the first super be filled. If the nadir process be resorted to instead of supers, the top hive will become the storehouse for almost all the honey the bees may collect. The nadir will gradually be filled with combs, and become the breeding-room; but unfortunately bees that are prevented from swarming generally and instinctively make far too much drone comb, which greatly impedes healthful progress. Nadirs are most advantageously used with early swarms of the current season, when both honey and stocks are aimed at from them. If I understand aright Mr. Howard's letter, the gentleman he alludes to has nadired two swarms of this year in 21-inch hives, which are already heavy. The top hives will, weather being favourable, become too full of honey for stocks, but will yield a large harvest of honey and honeycomb.

Now let us go back to the hive and its swarm. A second swarm may or may not be obtained. We take all the second swarms we can from hives that swarm in May. But suppose for a moment that the hive does not cast off a second swarm. All the brood in the old hive will be hatched about twenty-one days after the first left it. At this time the bees have no brood to attend to, and plenty of empty cells and bees to store honey in them. Such hives in good seasons rise in weight to 80 lbs., and sometimes more, and though too heavy for keeping are far better for stocks than those that never swarmed at all. We are now driving the bees out of our stock hives on the twenty-first day after swarming, and taking about 15 lbs. averagely of run honey from each stock. The quantity is unusually small, but the season has not been a favourable one. When the honey is thus taken the bees are put into empty hives, which they have to fill. As one stock hive is emptied it is refilled with the bees of another. These hives, filled with young combs and possessing young queens, generally make good stocks. We now come to notice the first swarm, which if obtained in May will in a favourable season for honey do better than and run before all non-swarmers.

If I am asked how it is that swarms invariably rise to greater weights than non-swarmers in honey seasons, I may not be able to give a satisfactory and philosophic reply; but the facts of fifty years' experience cannot be overturned by any philosophy. It is natural for bees to swarm, and to let them swarm is certainly and incontestably the surest and best method of obtaining and keeping good stocks. In the swarming system of management there are two or three hives full of bees at work, two or three queens laying, and any of the three hives under proper management is equal, we think better, for keeping than a non-swarmers. But one or two of them are marked for honey, and their bees united to the one that may be kept, thus making it doubly or trebly strong in bees. The apiary is thus kept full of hives with young queens and young combs.

When quite young we were instructed to look on non-swarmers as ineligible for stocks under ordinary circumstances, and at the end of a long and extensive practice we say that it is but seldom and with great reluctance we ever keep a non-swarmers another year. I thank Mr. Howard for his letter, and trust that both he and others will frankly and fairly state their opinions and perplexities.—A. PETTIGREW.]

### SPARROWS KILLING AND EATING BEES.

A few days ago Mr. Yates sent me the following letter:—"My brother has just returned from a visit to Doncaster, where he has been spending a few days. He remarks that when watching the bees he noticed the sparrows taking them. The sparrows perched on a tree near the hives, and suddenly darted and caught the bees. The birds carried the bees to the roof of the house, there killed them, and then carried them to their young. To be quite sure the gun was brought, and we soon had a good opportunity of shooting at a sparrow, which caught a bee and alighted on the ground; but, though the bird was hit and wounded, it flew away. On going to the spot a number of feathers were there and a bee—a drone, and so surmise the sparrows were catching drones only, which I believe they did at rather a considerable rate."

In confirmation let me say that on Sunday last I happened to be looking through a window at the bees working, when I observed two hen sparrows busily catching bees on the flight-board of one of the hives. Each bird jumped on the flight-board and caught a bee by the back, carrying it to the roof of the house. They soon returned for more, giving me ocular evidence of their destructive powers. I saw the sparrows jump off the flight-board with bees in their bills, and there kill and eat them. I was rather too far off to be sure whether the sparrows took drones only. I thought those that were killed and eaten in front of the hives were working bees. One drone I saw taken and carried away.—A. PETTIGREW.

P.S.—Since the above has been written I have seen hen sparrows again catching and killing bees, but have not yet suc-



ceeded in preventing the birds from carrying off their prey. If the sparrows take drones only we shall be grateful for their service; but if the working bees are thus destroyed, we shall endeavour to riddle the birds with sparrow shot.—A. P.

### AN EXTEMPORE BEE-TRAP.

We have this morning driven the bees out of a bell-glass super very successfully by the following method:—After setting the super on three inverted flower-pots, we placed over it a seakale-pot raised on two bricks. We then put on the cover of the pot and laid a piece of old sacking on the windward side. This was done just at 1 p.m. In about twenty minutes the bees began to clear off. A little before 2 p.m. as it came on to rain hard and scarcely any bees seemed to be coming from under the pot, we took off the cover and found not more than a dozen or twenty bees left in the glass. These were soon brushed out with a small feather, and in a little more than an hour from the time of its separation from the hive our booty was adorning the luncheon table. No doubt the risk of robbers was diminished by the day being dull, and consequently few bees being about.—A. O. N.

### OUR LETTER BOX.

**CHEAP POULTRY (H. P. B.).**—We know of no vendors of cheap poultry; every farmer sells mongrels at the market price. You must advertise, stating what you require.

**GUINEA FOWLS (Puzzled).**—You are on one point quite correct, although it was disputed for years, and is now by some fanciers. There is no doubt that Guinea Fowls pair. We are compelled to believe that the birds you have are both hens. All the little attentions you name may, under some circumstances, be practised by a hen assuming the plumage (as in other birds) and habits of the cock; especially is this the case in Spanish hens and hen Pheasants. The eggs laid by a hen "sole" would remain perfectly clear, because no germ of life exists. It cannot, therefore, be developed, and no corruption can follow. Such eggs would remain clear for any length of time, although under a hen.

**HAMBURG CHICKENS—PIGEON'S FACE WOUNDED (B. M.).**—You may feed the young Spangled Hamburgs as you would any others: boiled egg chopped fine, curd, bread crumbs, bread and milk, cooked meat chopped fine, and some beer to drink. You must dry the eruption on the face of your Pigeon with a sponge, and then burn off the excrescences as they appear with caustic. By drying we mean you must clear off all pus or moisture there may be under the crust or skin of the excrescence.

**SILVER-GRAY RABBITS.**—Mr. Firth writes, in reply to Mr. Savage, I never advised the breeding of the "too light-shaded Silver-Grays," which are "as objectionable as the dark shades." I maintain the opinion that no Silver-Grays with dark heads, feet, and tails should be an "exhibition standard;" but those which possess the true sharp silvery shade, beautifully and evenly interspersed with the blue-tinted sharp, and this exhibition shade I have always advocated. Mr. Savage says that Mr. Hudson's buck—prize buck "was none of the too light shade," and which was "as objectionable as the too dark shade." I presume the word "none" is a misprint for "now." [Yes.]

**Books (Fidget).**—Write to the author.

**JACOBIN LAYING SOFT EGGS (W. Carlton).**—Your bird is evidently improving, as the last egg had a shell, though a thin one. Separate her from the cock for ten days, and give her a small dose of castor oil, and feed her low. Soft eggs come from overfeeding, causing inflammation of the egg organs.

**HONEY FOR EXHIBITION (J. Marshall).**—If your swarm of June 5th has been put into a moderately-sized hive, it should be able to fill a super to hold 8 or 10 lbs. by the 25th of August. As soon as the hive is filled with combs, cut a hole 3 inches in diameter in the centre or crown of the hive, and place the super on and over the hole. The combs will not be damaged much by cutting such a hole. The super may be of glass, or wood, or straw; but glass supers require thick dark warm covers. If they do not have these the bees would do better in wood or straw. You ask if feeding will help your bees, and if it is possible to have two supers from your hive by feeding it well. We say yes to both questions, but feeding with sugar-syrup will not make honeycomb. You may speedily cause the swarm to fill its hive with combs by giving it plenty of much syrup; but if feeding be continued after the super is placed on the hive, it should be done with pure honey. Some time ago pains were taken to teach the readers of this Journal how to fill supers artificially and speedily. The process may be here repeated in a sentence easily understood: By placing or fixing plenty of white empty combs in the supers, and as soon as the bees begin to work in them give them good honey, or honey in old black combs, as fast as they carry it up. In this way supers of any kind may be filled.

**SUPPERING A HIVE (G. C.).**—The swarm which you found and hived may possibly fill a small super if the season be fine till the end. If a swarm fill its hive in four weeks, which is about the usual time in good seasons, it may be supered afterwards. Your swarm will make a good stock for keeping another year.

**MANAGEMENT OF A NADIR (E. R.).**—The top door of a nadir hive should be closed with a view to cause the bees the more readily to fill the nadir with combs. The nadir if well filled with worker-combs (not too much drone comb) will make a good stock for another year. Let all the bees be driven from the top hive into it when the honey is taken.

**TRANSFERRING BEES (G. S.).**—Your best time for transferring your bees from the old hive will be three weeks from the date of the issue of the first swarm. Probably before then you will have had a second swarm from the old hive. Should this occur before you see these lines you will doubtless have hived it in the "Neighbour" as you propose. If it should issue later, put the swarm in the old stock's place, and proceed to treat the old hive a day or two later as you propose doing, after giving time for the bees therein to return to their old place. You will not find many bees in it, but you can drive these together into a small hive or box, and set them immediately over the new swarm. Any brood which may be left in the old hive can be cut out carefully and given to any other hive to hatch out.

**OLD STOCKS NOT WORKING (H.).**—We should feel inclined to drive a swarm immediately out of the one, and put it in the old stock's place in a new hive;

then letting the old hive stand aside for a couple of days, till most of the bees had joined the swarm, we would shift away the other old hive, and put the deserted stock in place of it. A new queen would have to be raised, which would probably turn out a successful breeder, and so new blood would be introduced into your apiary; but you must feed up largely if necessary.

**CANARY MANAGEMENT (Waverley).**—You may remove the young Canaries from the old hen at the age of three weeks, so as to enable her to go on sitting her next nest of eggs without interruption from the young birds. They can be weaned off in the following manner. Cage off the young birds in a small wire cage, and hang the same close to the front part of the compartment in which the old birds are. Slightly open a couple of the wires of each cage, so that the cock parent can gain access with his head to feed the young. Supply the old birds with food, and likewise the young, which can be tempted to feed by putting additional small portions of egg and green food about the ends of the perches and other parts of the small wire cage, so as to attract them. In two or three days they will learn to feed themselves, when they can be safely removed. It is not of common occurrence for hen Canaries to lay ten eggs in fifteen or sixteen days. The hen having laid so many eggs within a given time was brought about through the force of circumstances. Very likely she would not have done so had she not been interfered with in some way. Some hen Canaries will not permit of liberties being taken with them. Naturally enough, where they have the opportunity, they often exercise a right of choice as to the position where to build and lay their eggs. We do not look upon the matter as an exceptional one. Most Canary hens, after constructing a nest and laying therein their eggs, would in a few days afterwards build and lay again, if such nest and eggs were interfered with. Five eggs each time is certainly a full complement. Sometimes they will lay six, and as many as seven eggs in a nest.

### METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51. 38' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1875.	Barom- eter at Sea and Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
June.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 23	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
Th. 24	30.193	61.0	57.3	S.W.	58.5	73.8	49.3	118.2	45.1	—	
Fri. 25	30.235	62.4	58.0	N.W.	59.0	76.1	50.7	129.0	45.5	—	
Sat. 26	30.085	60.5	58.0	W.	60.3	78.3	53.1	123.0	49.0	—	
Sun. 27	29.913	60.8	58.8	S.	61.0	78.0	52.6	130.0	48.1	—	
Mon. 28	30.080	65.0	54.3	S.E.	59.3	73.3	44.3	118.0	43.0	0.070	
Tu. 29	29.835	60.3	57.0	S.	60.5	73.3	54.0	123.5	52.1	0.200	
Tu. 29	29.951	61.3	56.4	S.W.	59.8	74.0	56.6	121.5	54.3	—	
Means	30.019	61.6	56.3		59.7	73.9	51.3	115.1	48.3	0.370	

### REMARKS.

23rd.—Fair though cloudy morning; a pleasant day, but not very bright.  
24th.—A very bright day, but rather stormlike in the evening.  
25th.—Fair but dull in the morning; bright in the latter part of the day.  
26th.—A fine day throughout, a few drops of rain in the early part.  
27th.—Bright pleasant day, but rain after 9 p.m.  
28th.—Rain in the night and early morning, and more or less all day; a little gleam of sun just before setting, but heavy rain after.  
29th.—Damp dark morning, clearing off about 10 a.m., after which time it was very fine till about 7 p.m., when it again became dull and dark.  
About 3° warmer than last week; but by no means as warm as we frequently have at this season, the highest temperature in shade being only 76.8°—G. J. SYMONS.

### COVENT GARDEN MARKET.—JUNE 30.

SUPPLIES generally are very abundant, and soft fruit from Kent and other counties south and west are now consigned to a considerable extent. The Potato trade has become rather heavy, and reported arrivals large. Hothouse Pines and Grapes quite sufficient for the demand; the latter, however, does not comprise any extra samples.

### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	4	0	0	0	Malberries.....	lb.	0	8	0
Apricots.....	box	1	6	4	Nectarines.....	dozen	8	0	15
Cherries.....	box	3	0	4	Oranges.....	per 100	8	0	14
Chestnuts.....	bushel	0	0	0	Peaches.....	dozen	19	0	30
Currants.....	do.	0	0	0	Pears, kitchen.....	dozen	0	0	0
Black.....	do.	0	0	0	dessert.....	dozen	4	0	0
Figs.....	dozen	8	0	13	Pine Apples.....	lb.	6	0	10
Filberts.....	lb.	0	0	0	Pistons.....	per 100	0	0	0
Cobs.....	lb.	0	0	0	Quinces.....	dozen	0	0	0
Gooseberries.....	quart	0	4	0	Raspberries.....	lb.	0	0	0
Grapes, hothouse.....	lb.	8	0	10	Strawberries.....	lb.	0	6	2
Lemons.....	per 100	8	0	12	Walnuts.....	bushel	8	0	15
Melons.....	each	8	0	6	ditto.....	per 100	1	0	1

### VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	6	Leeks.....	bunch	0	4	0
Asparagus.....	per 100	4	0	8	Lettuce.....	dozen	0	6	1
French.....	bundle	0	0	0	Mushrooms.....	pottle	0	9	2
Beans, Kidney.....	per 100	2	0	0	Mustard & Cress.....	punnet	0	2	0
Broad.....	bushel	6	0	0	Onions.....	bushel	4	0	0
Beet, Broad.....	dozen	3	0	4	Pickling.....	quart	0	6	0
Broccoli.....	bundle	0	9	1	Parsley.....	doz. bunches	4	0	0
Brussels Sprouts.....	per 100	0	0	0	Parsnips.....	dozen	0	0	0
Cabbage.....	dozen	1	0	3	Peas.....	quart	1	0	2
Carrots.....	bunch	0	6	0	Potatoes.....	bushel	4	0	0
Capiciums.....	per 100	0	0	0	Kidney.....	do.	4	0	0
Cauliflower.....	dozen	8	0	0	Radishes.....	doz. bunches	1	0	1
Celery.....	bundle	1	6	0	Rhubarb.....	bundle	0	4	0
Coleworts.....	doz. bunches	3	0	4	Salsify.....	bundle	1	6	0
Quicumbars.....	each	0	6	1	Scorzonera.....	bundle	1	0	0
Pickling.....	dozen	0	0	0	Seakale.....	basket	0	0	0
Endive.....	dozen	3	0	0	Shallots.....	lb.	0	8	0
Fennel.....	bunch	0	8	0	Spinach.....	bushel	8	0	0
Garlic.....	lb.	0	8	0	Tomatoes.....	dozen	2	0	0
Herbs.....	bunch	0	0	0	Turnips.....	bunch	6	0	1
Horseradish.....	bundle	0	0	4	Vegetable Marrows.....	doz.	2	0	4

## WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 8—14, 1875.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	m. h.	m. h.	m. h.	m. h.	Days.	m. s.	
8	Th	Richmond Show. Nottingham Exhibition opens.	74.0	50.0	62.0	55 af 8	15 af 8	12af 10	58af 10	5	4 42	189
9	F	Oxford Rose Show.	74.1	49.4	61.8	56 8	14 8	26 11	8 11	6	4 53	190
10	S	Royal Botanic Society at 8.45.	74.7	50.8	62.5	57 8	18 8	after.	18 11	7	5 0	191
11	Sun	7 SUNDAY AFTER TRINITY.	75.4	50.7	63.0	58 8	18 8	51 1	30 11	8	5 9	192
12	M		75.9	50.5	63.2	59 8	12 8	3 8	45 11	9	1 17	193
13	Tu		76.1	51.4	63.7	0 4	11 8	17 4	morn.	10	5 24	194
14	W	Royal Literary Fund at 8 P.M.	74.5	50.5	62.5	1 4	10 8	30 5	4 0	11	5 31	195

From observations taken near London during forty-three years, the average day temperature of the week is 75.0°; and its night temperature 50.4°.

## WANTED, INFORMATION ABOUT PEARS.



ONCE or twice it has been proposed in these columns to have an election of Pears on the principle of Mr. Hinton's excellently-conducted Rose elections, but the subject is full of difficulties, and our knowledge of it is evidently very imperfect. For my own part I am obliged to confess that I am miserably behind in the matter, and I am afraid, as the information is not forthcoming, that some of my *confrères* are not much better informed than myself. It is true we have the new edition of the "Fruit Manual," and the amount of information contained in it is nothing less than marvellous for the work of one man; but we want as many Dr. Hogges as we have members of Parliament, and all of them to be as fond of work as the original, before we can obtain the accurate information which I should like us to possess.

Perhaps it is impossible in our generation to obtain a perfect knowledge of the subject, but we can do something to make the task easier for our successors, and I would ask if it is not possible to conduct a series of observations extending over three years in every part of the country, with directions from head quarters? I would propose to take the Pear first, as I consider it the most useful of all outdoor dessert fruits, and it is the fruit on which our knowledge is the most imperfect. It is the most variable of fruits in different soils, seasons, climates, and on different stocks, and the usually-grown sorts vary from those which are good in almost all seasons and climates to those which are never good under any conditions.

Take up the most select catalogue of fruits for sale you can find, and looking over the names of Pears you are certain to find at least one or two which it is questionable if anybody ever saw good in this country. I never saw Duchesse d'Angoulême good, yet you will hardly find a catalogue without it. This, of course, is not the fault of the nurserymen; they must propagate that which they have a demand for.

Then there are some sorts which are all very well to look at, but are not fit to eat—Beurré Clairgeau and Vicar of Winkfield for example. Some sorts are improved by being grown against a wall, others are of better flavour from standards. I am inclined to think that all which will ripen without a wall are best without it. Some bear the best fruit on the extremities of the shoots, and therefore should not be pruned hard, as Jargonelle. Some will scarcely exist on the Quince stock, as Marie Louise; others are altogether indifferent as to what kind of stock they are on, as Glou Morceau; while others again are even said to be improved in quality by being grafted on the Quince. Some kinds bear in all seasons and climates, and are generally good, as Louise Bonne of Jersey; others bear a crop perhaps once in two or three years, as Williams's Bon Chrétien; and some, although they bear, are only first-rate occasionally, as Napoléon. Some kinds

are comparatively hardy and do well in the northern parts of the kingdom, and are perhaps best when grown there; others are only suited for the most favoured spots in the south and west.

Now, an average good gardener coming from Scotland to the south of England knows pretty well what Apples he can depend on, but in the matter of Pears he is all at sea; and the southerner going northwards would be in as great or a greater dilemma. Even different parts of the same county vary very considerably. We want then, when going to a strange place, to be able to lay our hands on a list of fruits which are known to succeed in that particular county in which we are to take up our abode, and it will at least be a little guide to the way in which we ought to conduct our experiments. If the list were compiled in the immediate neighbourhood by a trustworthy person, and on the same sort of soil as that with which we have to deal, of course it would be invaluable. It takes an average lifetime for one to obtain a perfect knowledge of the subject in any particular part of the country if he has no data to guide him, and then if he in turn does not put his experience on record his successors may have to go over the same ground, instead of being able to march onward as they ought to do.

It may be said that his successors should be guided by what they find doing well; and so they will if all belong to the intelligent class of gardeners; but, unfortunately, more than half belong to another class, and the chances are that in the present backward state of horticultural knowledge amongst the aristocracy, a good practical man may be succeeded by one who can use his tongue better than his spade, and the result of his predecessor's lifelong study and practice is speedily demolished. It is very sad when this is the case, but I am within the bounds of truth when I say it is actually happening every year. Oh that our great seats of learning would give a smattering of vegetable physiology and kindred subjects to their students! they would be doing greater good to mankind at large than by teaching heathen mythology. At present our gentry only find out by accident that such subjects as horticulture and arboriculture are interesting, and some of them do not find it out at all. I pity them. They miss seven-eighths of the enjoyments of this earthly paradise of ours. But to my subject.

I think it would be well to issue printed forms to all who care to have them to be filled up and sent in each year after the Pear season is over, say in May, something like the accompanying sketch. I should be glad if others would give their ideas and suggestions on the subject, and strive to awaken an interest in it. We want more precise information as to the average period of ripening the autumn Pears in each district; it is not enough to say a Pear ripens in September or October, because there are not many of the autumn Pears which last in condition more than ten or twelve days. There are far too many sorts in cultivation ripening at that time; we merely want to save the cream of them. A fruit must not only be good, it must be very superior to be tolerated at a season when it has so many competitors.

Name.	Stock.	How trained. If on wall, what aspect.	How pruned.	When gathered.	First six ripe.	Last six ripe.	Quality.
Fondante d'Automne ..	Quince	Pyramid	Mod. Autumn.	31st Aug.	12th Sept.	20th Sept.	Good.
Beurré d'Amanille .....	Quince	ditto	ditto	31st Aug.	12th Sept.	20th Sept.	Excellent.
Thompson's .....	Pear	ditto	ditto	19th Sept.	1st Oct.	30th Oct.	Excellent; very sweet. The best I ever tasted.
Vicar of Whitfield .....	Pear	ditto	ditto	4th Sept.	End Oct.	30th Oct.	Poor; dry.
Devenant du Comice .....	Quince	ditto	ditto	28th Sept.	15th Oct.	30th Oct.	Excellent; very fine white flesh.
Beurré superfin .....	Quince	ditto	ditto	Mid. Sept.	28th Sept.	18th Oct.	Excellent.
Ditto No. 2 .....	Quince	ditto	ditto	28th Sept.	10th Oct.	30th Oct.	Ditto.
Van Mons Léon le Clair.	Pear	South wall; Fan-trained.	Mod. above. Midsummer and Autumn	28th Sept.	13th Oct.	23rd Oct.	Large and good.

Soil—Heavy and shallow.

Subsoil—Stiff clay.

General Remarks—As a rule the Pears here seem to do best on the Quince, but Gloe Marceau, Thompson's, and Van Mons Léon le Clair are exceptions.

Address—Wm. Taylor, Longlat, Westminster, Wille.

Date—28th June, 1875.

We want also to know what kind of pruning best suits different soils and climates. I am under the impression that close pinching and hard pruning do not answer on strong heavy soils. There are very likely other points of importance which I have omitted in this hurried sketch. I have purposely omitted mentioning the geological formation, as that would add an insuperable difficulty to some persons, and it can easily be filled in by whoever undertakes to tabulate the information received; and I venture to say that if we can obtain a hundred returns from widely-distant parts of the country that I could find some one able and willing to weed them of all eccentricities of taste, and turn them to good account.—

WILLIAM TAYLOR.

## ROSES.

I HAVE been away for some little time on the Continent, and have been interested in reading-up on my return the numbers of the *Journal of Horticulture*, which I had missed during my absence. It is my intention, as soon as I can find time, to send a few remarks on the comparative merits of English and foreign gardening (as far, that is to say, as public parks and gardens are concerned), and shall expect my friend "D., Deal," will say, "What! John Bull again!" My object, however, in writing now is to make some few remarks on recent Rose communications from Mr. Camm and others. I can, to begin with, quite confirm one of our Editors' remarks, that there are no Roses so sweet with the real Rose fragrance as the old Moss and the Provence (common Cabbage), and I was very pleased to see a fine quarter of the old Moss at Battersea Park at the entrance near the York Road station, called, I think, the rosery entrance. Mr. Roger tells me he thinks they are some of the true old Moss left from the old nursery grounds which existed there before the park was made. On the first day I was there, a warm day after rain in the morning, the whole air was quite fragrant with them. I do not wish to take away from the merits of the Tea Roses,

with their peculiarly delicate and aromatic scent, but it is so very different from that of the Provence, Damask, Moss, and the generality of Hybrid Perpetuals as to be quite distinct in its way. The old Sulphurea odorata, called by some Crystal-line, with its long egg-shaped bud, and which I believe was the first Tea introduced into this country, and which I fear is now rarely to be met with, is still almost the sweetest in its class. Amongst others in the Hybrid Perpetuals one has not I think been named yet, and that is Senateur Vaisse, and I would also add François Lacharme, which is one of the sweetest of all the Hybrid Perpetuals, but, unfortunately, only a weak grower. After all, though fragrance adds much to the value of a Rose, yet when we come to decorate a room with Roses we should be sorry to cut out such Roses as Mme. La Baronne de Rothschild, &c., because they were deficient of scent, and we think far more of beauty of colour, form, freshness, to say nothing of size (which I still think a most important element so long as it does not lead to coarseness), than we do of the mere scent.

I am glad Mr. Camm has raised the question about cut-back Roses *versus* maidens. I am not an exhibitor, as I live too far north and too much away from Rose exhibitions to be able to send Roses for competition. I cannot, therefore, speak from my own experience, as I have never yet thought it worth while to try to compete with all the difficulties I should have to surmount. So long as the leading nurserymen bud so many Roses as they do every year on Dog Roses and Manetti, and pay but slight heed to their cut-back Roses, so long we shall be told that the only Roses fit for competition are those from maiden stocks. The fact is, transplanted Roses on Briar stocks have so much to contend with, that Roses on transplanted standards and half-standards are rarely, if ever, good enough for competition; but I am quite sure on ordinary good garden soil Roses that are well established on Manetti stocks properly pruned, well manured, and cultivated, will produce quite as good blooms and in far greater abundance than maidens. Roses, too, on their own roots, under proper cultivation, will also give quite as fine blooms as those on the Dog Roses. There are, however, heavy soils which are suitable to the Briar which will neither suit the Manetti nor Roses on their own roots, and when a lucky season comes then a quarter of newly-budded Briars on a clay soil will often carry all before them. The mistake, however, that is too commonly made is, that because a heavy clay soil suits a Briar, that consequently it is a congenial soil for the Rose; whereas it generally happens that the Dog Rose is the only stock that does any good on it, and that only when there is a sufficient amount of loam in the soil, or when plenty of vegetable matter is added by means of farmyard manure.

As I have before this ventured to state no one system did so much to prevent amateurs from growing good Roses as the plan which at one time so extensively prevailed, and which I am sorry to say has not yet been sufficiently discarded, of growing nearly all Roses in a garden as standards. At one time the only Roses to be seen in gentlemen's gardens were standard Roses planted, perhaps, on the grass on each side the principal paths, or with little circles cut out of the lawn in which annuals and other plants were grown. The whole system of pruning which standards had to undergo in order to make symmetrical heads is so contrary to the natural growth of the Rose as almost of itself to militate against the production of really good Roses. Then, again, most garden soils are not suitable to the Briar, and out of a hundred standards sent out by nurserymen not more than half, or perhaps I might be nearer the mark if I said a quarter, have really had any attention paid to that most necessary article the roots. They are generally cut out of hedgerows by men in winter time when they may run short of other work, and so long as they have a good straight stem they care very little how much root they have. The consequence is a great proportion of the stocks when planted never recover the rough treatment, some die altogether, some eke out a lingering existence, but all that are able to push any shoots are budded, and in the course of another season are again transplanted when ordered by gardeners or gentlemen from the nurserymen, and have their powers of endurance again tested.

I am glad to say that the Manetti, the seedling Briar, and Roses on their roots are gradually getting the better of these old standards; but so long as the standard is adopted as the general system, so long cut-back Roses will be at a discount, and gentlemen will be under the impression that they cannot grow Roses or that their soil is not suitable for them. When



they see their own Roses grown on transplanted standards, and compare them with the grand display now made on the exhibition stands by our leading nurserymen and amateurs, Mr. Camm has, I think, consequently done good service by calling our attention to cut-back Roses.

I should like much to have inquired at the Alexandra and Crystal Palace Rose Shows how many of the blooms exhibited by the amateurs were from old-established plants. I certainly do not ever remember to have seen a better collection of amateur Roses taken as a whole than those shown by the amateurs at the Crystal Palace. The nurserymen were in high force, and I do not think I ever saw a better seventy-two than those which Mr. G. Paul staged, and which carried off the premier prize; but when we consider that the generality of amateurs only cut from a comparatively small number of Roses, I think that the Roses shown by the amateurs on Saturday, 26th of June, at Sydenham were quite as meritorious in their way as those shown by the nurserymen, and the majority of the blooms were quite equal in their way to those in the nurserymen's classes. If, as I fancy, the majority were from cut-back Roses, it would help materially to confirm Mr. Camm's remarks.

What shall I say about the much-vexed question as to the merits of *Mme. Lacharme*? I am inclined to think that neither "*D. Deal*," nor Mr. Camm is right: that one exalts it too highly, while the other pulls it too much to pieces. It is undoubtedly a good pot Rose, but it is too delicate and flimsy in the petals for ordinary garden purposes. It puts me somewhat in mind of *Miss Ingram*, which also was equally highly extolled and as much declaimed, and which still is a good Rose when caught at its best, much as I expect *Mme. Lacharme* will be. Certainly a box of it at the Alexandra Palace was worthy of high commendation.

French raisers of Roses will have to look to their laurels. The last three years have given us but very few worth anything. Take *Etienne Levet*, *François Michelon*, and a few others out of the list, we have a great deal of trash, as *Abbé Brammerel*, *Maxime de la Rocheterie*, and others to place against them. Why I name this is that some of the recent English-raised Roses, as *Cheehunt Hybrid*, *John Bright*, *Duchess of Edinburgh*, *Emily Laxton*, *Mrs. Laxton*, *Oxonian*, and others seem likely to be taking precedence over the foreigners.

While on the subject of Roses may I press upon nurserymen in preparing their catalogues to give the name of the raisers to their Roses, not merely in those cases where there are two of the same name, as *Duchess of Edinburgh* of *Veitch's* and *Bennett's*, but because it is only fair upon those who have furnished the public with the best Roses to have their names honourably mentioned, and it also might help as a check, which is much wanted, against worthless novelties?

I must conclude by saying I was much amused by Mr. Radcliffe's idea of button-hole Roses. I wonder he did not add *Baronne Prevost* and *Felix Genaro*, to say nothing of *Mme. Masson*. *Mais chacun à son goût*.—C. P. PEACH.

### DR. RODEN'S STRAWBERRIES.

MORRINGSIDE is the residence of Dr. Roden of Kidderminster, who frequently contributes to the pages of your Journal, and who is quite a professional in many branches of horticulture, and whatever he undertakes he generally carries out to perfection. Notably at present are his Strawberries, which are a sight worth going miles to see, and anyone interested in the culture of that delicious summer fruit will have ocular demonstration of what can be done with them. Dr. Roden has made the cultivation of the Strawberry and raising of seedlings his study for years, and has been successful in raising a number of seedlings which bid fair to take the field against a great many existing varieties.

Early Prolife and Duke of Edinburgh were sent out some years ago, and I have proved them to be excellent for forcing. Early Prolife I consider a first-class Strawberry for forcing in every point of merit, to be succeeded by Duke of Edinburgh. These have taken the place of *Black Prince* and *Keens' Seedling*, with me the former being so liable to mildew, and the latter in many cases a great many of the plants prove barren; but the Doctor is bringing out another Strawberry which is earlier than either of the above, and a grand cropper; he names it *Alpha*. Amongst early Strawberries he has also *Amy Robsart*, *Early Crimson Pine*, and *Hundredfold*, the latter properly named, for it is a mass of fruit all round the plant, and has a good constitution. There are also to be seen his eight-year-old *British Queens*, about 5 feet through, and supported with

crinollines completely covered with fruit. The Doctor has also a great many other mid-season seedlings, and also very late seedlings, a later than any we have at present in cultivation is a desideratum which I hope the Doctor will be able to supply; and this is not the only branch of horticulture in which the Doctor excels, for in fruit trees he has a splendid collection of all the best sorts of Pears, Apples, Plums, &c., models of good training, and by judicious treatment, such as root-pruning, summer-pinching, &c., he is generally able to secure good crops of fruit.—J. A., *Hill Grove*.

### THE MIDLAND COUNTIES HORTICULTURAL EXHIBITION, BIRMINGHAM.

In the Lower Grounds, Aston Park, this great Show was opened on the 1st inst., and continued for four days. The laudable object of Mr. Quilter in seeking to benefit a worthy institution, his encouragement of popular gardening, his administrative ability and liberal recognition of all who aid him, secured the response of a wide range of cultivators, and the result is a display of the best products in the different sections into which the Exhibition is divided. The past history of these Shows and their great success has raised them far above a local character, and we are glad to say their reputation is sustained. The display this year is in most points equal, and in some superior, to the gatherings of past years. The plant department is full and fine, the Roses and cut flowers extensive, the vegetables of the first order of merit, and the fruit of excellent quality, but does not perhaps afford such an imposing display as did this section last year. Implements and appliances are also extensively represented by the principal firms of the country. The Rose tent, which also contained other cut flowers, plants, fruit, and vegetables, is 300 feet in length by 45 feet in width. A covered corridor, 60 by 45 feet, containing *Pelargoniums* and *Ferns*, leads to the tropical plant tent, which is 300 feet in circumference. The specimen plant tent is 136 by 80 feet, and there are thirty allotments of space for implements. These are all filled, and, excluding other conveniences, give a fair outline idea of the extent of the Exhibition. Taking the classes in their order of arrangement we commence with the

SPECIMEN PLANTS, and find collections of great cultural and decorative merit. The plants are arranged on turf banks—a large central oval and marginal tiers. In Class 1, for sixteen stove and greenhouse plants in bloom, the competitors are Messrs. Cole & Sons, Withington, and Mr. Cypher, Cheltenham. Messrs. Cole won the £25 prize, and being the second time they have achieved this honour, the silver challenge cup in addition becomes their own. Their plants were not only large but in admirable condition of health and freshness. Some of the best were a grand *Hedera* *multiflora*, a perfect globe of fully 6 feet in diameter; huge and densely-bloomed *Azaleas*, two very fine *Allamandas*, *A. grandiflora* being exceedingly effective; a remarkably fine plant of the old *Vine* *oculata alba*, very fine *Ixoras*, *Ericas Cavendishiana* and *Candolleana*, very large; and *Parmentieriana* roses, excellently shown; a capital *Phenocoma*, a good *Anthurium Scherzerianum*, &c. This was a valuable, well-grown, and well-arranged collection. The second-prize plants, Mr. Cypher's, were in health and arrangement in no way inferior to the above, but were not so large. They were, however, fine and admirably grown specimens, the most striking being a brilliant *Combretum* clothed in rich deep scarlet; very fine *Allamandas*, *Francoacea eximia*, very telling; *Clerodendrum Balfourianum*, extra fine; a fine *Kalosanthus*, *Genetyllis*, *Ericas*, &c., a fresh and beautiful collection which anyone may be proud to own. The next class for twelve plants in bloom brought out some superior examples of culture. Messrs. Cole and Sons again had the post of honour, followed respectively by Mr. Cypher and Mr. Perkins, Leamington. Messrs. Cole's was a fine group, *Ixoras Coleii* and *Williamsii*, *Ericas Massoni* major and oblate, a good *Bougainvillea*, *Allamanda*, and *Azaleas* being the most striking. The cream of Mr. Cypher's were *Allamanda grandiflora*, very bright; *Dipladenia amabilis*, *Ixoras*, *Phenocoma*, *Statice*, and *Dracophyllum*, all uniformly excellent. Mr. Perkins having as the best a very fine *Dipladenia*, and immense *Statice imbricata* and *profusa*, very attractive and good. The individual excellence of the plants in these classes was very remarkable, and their freshness for the period very noteworthy.

The next was an amateurs' class for ten stove and greenhouse plants in bloom, and was filled with four collections of rare excellence. The first prize of £12 went to Mr. Chapman, gardener to J. Spode, Esq., Hawkesyard Park, with elephantine plants in capital order. *Bougainvillea glabra* was 5 feet through and densely bloomed; *Clerodendron Balfourianum* and *Phenocoma* being equally large; *Ericas Parmentieriana* and *Aitoniana* were very fine; with *Ixora*, *Dracophyllum*, and *Statice*. Mr. Pilgrim, Fairlawn, Cheltenham, had the second place with a splendid lot containing one of the finest plants of *Anthurium Scherzerianum* ever seen, a perfect model of sixty bright spathes; his *Stephanotis*, *Erica ventricosa* major, *Genetyllis*,

and *Phenocoma* were also admirably grown. The third prize was worthily won by Mr. Parkes, gardener to J. Marriot, Esq., Warwick Green, Coventry, with a group of beautiful and well-finished plants. *Sobralia macrantha* was 4 feet through; and equally well set up were *Eucharis amazonica*, *Oncidium flexuosum*, *Dipladenia* and *Statice*, and other remarkably good medium-sized plants. A fourth prize was deservedly awarded to Mr. Tudgey, gardener to J. F. Williams, Esq., Henwick Grange, Worcester. The growers of the plants in this class are to be complimented on the results of their skill, and each richly deserve the honours they have won.

The next was an open class for the best specimen stove plant in bloom. There were eight competitors. First honours fell to Messrs. Cole & Sons for a grand plant of *Ixora Coleii* 5 feet high and 4 feet through, a dense mass of white blooms. Mr. Foster, gardener to E. Greaves, Esq., Avonside being second for a plant of the same size of *Stephanotis* in fine health and bloom. Mr. Webb, gardener to J. Gulton, Esq., Warwick Green, Coventry, being third also with a *Stephanotis* not so large as the preceding, but with better foliage and finer flowers. Neither of these plants, however good as they are, evidenced such skill in growing as Mr. B. S. Williams's fine *Anthurium*; but, possibly by being a little past its best, it could not win a place, which proves how good the winners were. For the best specimen greenhouse plant Mr. Webb was first with a well-grown specimen 4 feet in diameter of *Bouvardia angustifolia*; Mr. Chadwick, gardener to C. Nelson, Esq., Crackley Hall, Kenilworth, having the second place with a fairly good *Statice*. There were six competitors, but except the winners the plants were only of moderate quality, and the third prize was justly withheld.

We now come to the fine foliaged plants, and although some very good specimens were staged, the plants generally in these classes were not of extraordinary merit. In the nurserymen's class for nine plants Messrs. Cole & Sons had the first place with *Phormium tenax variegatum*, *Yucca aloifolia*, a good *Dasyliiron*, *Croton pictum*, and Palms; Mr. Cypher being second with smaller but generally brighter plants, *Euria latifolia variegata*, *Phormium tenax variegatum*, *Yucca aloifolia*, a *Dracena*, *Croton*, and Palms constituting the best of the group. In the corresponding class for amateurs were some very beautiful plants, the first-prize collection from Mr. Foster containing some remarkable specimens. The most striking of all was a noble plant of *Cycas revoluta*, 8 feet across, in robust health, and with a globe of fruit in the centre a foot in diameter; he had also *Croton angustifolium* and *pictum* in pyramids of 8 feet in height, a beautiful *Encephalartos villosus* with a severed bloom spike attached, *Phenocophorum seychellarum*, and *Areca Verschaffeltii* in perfect health. Mr. Pilgrim had the second place with, amongst others, a capital *Dasyliiron acrotichum*, a nice *Croton Weismanni*, *Thrinax elegans*, and a well-coloured *Phormium*. Mr. Brown, gardener to Mrs. Alston, Elmton Hall, Birmingham, was third; his collection embraced a very fine *Gleichenia semivestita*, *Phormium tenax variegatum* throwing up a spike of bloom, and an exceedingly good *Caladium*. In the nurserymen's class for six plants Mr. Cypher was first, and Messrs. Cole and Sons second, with plants not greatly differing from those in Class 9. In the amateurs' sizes Mr. Pilgrim was placed first; Mr. Jones, gardener to C. E. Matthews, Esq., second; and Mr. Brown, Elmton Hall, third. Mr. Pilgrim had besides the plants previously enumerated a very good *Cordylina indivisa*, a fine *Encephalartos*, and a capital *Theophrasta*. Mr. Jones had some very nice specimens of *Euterpe edule*, a well grown *Caladium Belleymeyii*, *Araucaria excelsa*, and a good *Latania borbonica*. Mr. Brown's plants were smaller, but equally well grown, with those in the other collections. In the open class for the best specimen fine foliaged plant, Messrs. Cole & Sons had the first place with a remarkably healthy *Cocos Weddelliana*, Mr. Cypher being second with a smaller plant of the same beautiful Palm, Mr. Parkes having the third place with an excellent *Alcaesia macrorhiza variegata*, very clear and pure in its markings, and altogether a good plant. In this class were six competitors. For six *Dracenas* Mr. B. S. Williams was placed first, Mr. Brown second, and Mr. Matthews third. Some of the plants were very good, but the collections did not equal those of Mr. Bull and Mr. Willis at the late Crystal Palace Show. For the best specimen *Croton* Messrs. Cole & Sons won with a grandly coloured *C. angustifolium*. One could not but feel that the name of the Golden-fountain Plant was very appropriate. When well grown this old favourite is still one of the most beautiful, as it is certainly the most elegant of all the *Crotons*. Mr. Cypher had second honours with a fine plant of *C. longifolium* extremely well coloured, Mr. Parkes being third with a capital plant of *C. Weismanni*.

**FERNS.**—In these classes were many exceptionally fine plants. In the nurserymen's class for eight plants Mr. B. S. Williams and Mr. Cypher were awarded equal first prizes, and well they merited the honour. Mr. Williams had his fine *Alsophila*; he had also an excellent *Cibotium*, very fine *Gleichenias*, a beautiful plant of *Davallia Mooreana*, *Marattia elegans*, and a very good *Adiantum farleyense*. Mr. Cypher had *Cibotium princeps*,

*Gleichenias speluncæ* and *dichotoma*, *Neottopteris australis*, admirably grown, also a very good Silver Fern. These were very fine groups, as also were the following in the amateurs' class:—For eight plants were seven competitors, first honours falling to Mr. Brown, Elmton Hall, for a splendid collection. *Todea superba* was in a rare state of perfection. The silver *Gymnogramma peruviana* and the gold *G. chrysophylla* were capitally grown. *Davallia Mooreana* was very fine, *Leucostegia immersa* 6 feet over, and a large *Gleichenia* were the most striking plants. Mr. Jones, gardener to E. E. Matthews, Esq., had the second place with a collection of level excellence; Mr. Colman, gardener to W. Baylis, Esq., Walsall, being placed third with very good plants. For the best pair of tree Ferns Mr. B. S. Williams was without a rival with plants of *Dicksonia antarctica* 10 feet high, and with trunks more than a yard in circumference. For six *Cycads* Mr. Williams was first with a striking collection in remarkable health of *Encephalartos horrida*, *Lehmanni*, *Ghelinoki* and *villosus*, *Dion edule*, and *Cycas revoluta*. Mr. Pilgrim being second with healthy medium-sized plants. For the best specimen Fern, *Adiantum* excluded, Mr. Williams won with his noble plant of *Alsophila australis* Williamsii, the most distinct and beautiful of all tree Ferns, the fronds of which assume the graceful weeping character on plants in a young state. It is an important acquisition to a valuable class of plants. Mr. Brown, Elmton Hall, was second with a very healthily-grown *Dicksonia*; Mr. Quarterman, gardener to T. Gladstone, Esq., Edgbaston, having the third place with a nice *Alsophila australis*. There were eight competitors. Eight also competed for the best *Adiantum*, Mr. Cypher being first with a grand *A. farleyense* fully 4 feet through; Mr. Parkes having the second place with a plant of the same nearly as good; Mr. Peavor being third with *A. cuneatum*. For twelve hardy Ferns fine collections were staged. Mr. Moreley, gardener to J. E. Mapplebeck, Esq., Birmingham, winning the first place with splendid plants of *Athyrium Filix-foemina* var. *robusta multifida*, 6 feet over; *Lastrea cristata*, fronds 3 feet in length, and the plant 4 feet through; *Athyrium Filix-foemina* Elworthii, very beautiful; *A. Pritchardii* and *A. coronatum*, finely crested; and a beautiful *Polystichum angulare* var. *proliferum Wollastonii*. Mr. Brown, Elmton, had the second place with healthy medium-sized plants of *Scelopendrium*, *Athyrium*, &c.; Mr. Coleman being third, his noticeable plant being *Onoclea sensibilis*. The Ferns in these six classes alone numbered 199 plants, and scarcely an inferior one was to be seen. In contrast was the following class for

**THREE PITCHER PLANTS.**—Only two competed, Mr. Tudgey, gardener, Kenwick Grange, being first with *Nepenthes Hookeriana* and *distillatoria*, and *Sarracenia purpurea*; Mr. Williams having the second place with a trio of better quality of *Nepenthes Sedeni* Hookeriana and *phyllanthora*. Neither were the Heath classes remarkable for fine plants. In the nurserymen's class for six *Ericas* Mr. Cypher was placed first, and Messrs. Cole & Sons second. *Eximia superba*, exquisite, *Massoni major*, and *Parmentieriana* were the smallest plants and the best. In the corresponding amateurs' class better plants competed. Mr. Pilgrim had the first place, *E. Lindleyana*, oblate, and *ventricosa* being good, with a nice plant of *ferruginea major*. Mr. Tudgey was second with small and medium-sized well-grown plants. Mr. Chapman being third with larger but looser specimens.

**PALMS.**—In the nurserymen's class for six plants good collections were set up by Mr. J. H. Ley, Croydon, and Mr. B. S. Williams, who had first and second prizes in the order named. Mr. Ley had *Martinezia Lindenii*, *Latania borbonica*, *Thrinax elegantissima*, *Chamerope tomentosa*, *Astrocaryum mexicanum*, and *Acanthoriza*; Mr. Williams having *Sabal Blackburniana*, *Areca lutescens*, *Phenocophorum Seychellarum*, *Astrocaryum*, *Chamerope*, and *Latania*. All the plants were healthy and fine, and so equal in point of merit that they might fairly have had equal awards. In the corresponding class for amateurs Mr. Pilgrim, Cheltenham, had the first place with well-grown glossy plants of medium size; Mr. Brown, Elmton, being second with a nice collection.

For six new and rare plants sent out in 1873, 1874, or 1875 there were seven competitors, Mr. B. S. Williams being placed first, Mr. Cypher second, and Mr. J. H. Ley third. Amongst the most noticeable were, in Mr. Williams's group, an excellent *Dracena Baptistii*, *Croton majesticum*, *Dipladenia Brearleyana*, a fine *Cyathia Dregii*, and *Bertolonia Van Houttei* in splendid form and colour. Mr. Cypher had as the best *Dipladenia Brearleyana* very good, *Phyllotantium Lindenii*, *Croton majesticum*, *Ficus Parcellii*, *Aralia Veitchii*, &c.; Mr. Ley having a *Dion*, *Zamia*, *Croton*, &c. Messrs. Barron & Sons' choice collection of new Conifers in this class attracted considerable attention.

**ORCHIDS.**—These were not largely represented. In the open class Mr. Williams was the only prizetaker. Amongst his ten plants were *Vanda Batemanii* with a fine opening spike, *Aërides odoratum majus* with sixteen racemes, *Pilumna fragrans* with four fine spikes, *Aërides Larpentæ*, *Odontoglossum citrosum*, *roseum*, *Lælia purpurata*, &c. In the next class for six plants

Mr. Williams was again without a rival. Besides duplicates of those above named, he had *Aërides virens* Ellisii with two beautiful racemes, *Dendrobium*, *Pterardia latifolia*, the two main spikes having each forty flowers; *Dendrochilum filioforme*, a *Masdevallia*, and *Cypripedium*. These classes were a magnet point of interest to the visitors, the quaint and beautiful flowers showing to advantage amongst the Ferns and Palms.

GLOXINIAS were not good, having being injured in transit. The first award went to Mr. Coleman, Walsal, who had very nice examples of Queen Victoria, Pink Perfection, Queen of Portugal, and *Oerise Unique*; Mr. Webb being placed second with larger plants of inferior varieties.

SUCCULENTS.—The class for twenty-five varieties of these interesting plants brought out two beautiful collections from Messrs. James Dickson & Sons, Newton Nurseries, Chester, who had the first prize, and Mr. Pilgrim, Cheltenham. Messrs. Dicksons' group consisted of *Agaves coccinea*, *applanata*, *dealbata*, *ferox*, *univittata*, *Verschaffeltii*, *Richardii*, *amœna*, *horrida*, *Celsii*, *corulescens*, &c., with *Opuntia cylindrica cristata*, *Echinocactus hamatus* and *E. electracanthus*, *Melocactus corymbosus*, &c. The most striking in Mr. Pilgrim's group were *Echeveria pulverulenta* and *Aloe grandident*. Than these plants nothing in this Exhibition was more greatly admired, and the cultivation of plants so thoroughly distinct can hardly fail to become more general. They afford an enjoyable change from the richness of flowering plants and the elegance of Ferns, and the longer they are grown the more ornamental and valuable they become. We now come to plants of a directly opposite character—viz.,

FUCHSIAS.—The classes for these elegant plants were well filled, and very fine but not gigantic specimens were staged. For the best nine plants the first prize was awarded to Mr. Caldwell, gardener to W. Matthews, Esq., Edgbaston, Mr. Cusdon being second, and Mr. Quarterman third. The plants were not closely trained, but were mostly of a pyramidal shape, and in excellent health. Out of the seventy-five plants the best were the old *Venus de Mediol*, *Lustre*, *Wave of Life*, *Senator*, very fine; *Annie*, *Marguerite*, *Princess Beatrice*, *Roderic Dhu*, extra fine; *Miss Marshall*, *Nabob*, very good; *Blue Beauty*, *Improvement*, splendid flowers; and *Noblesse*. These were generally exhibited better than were the

PELAGONIUMS.—In the open class for six Show varieties Mr. Turner, Slough, had the first place, Mr. Chadwick being second, and Mr. Quarterman third. The plants were about 2 feet in diameter, with good flowers, but were somewhat drawn by having been retarded in the shade. For the best collection of twenty plants the awards were the same. These were nice plants from 18 inches to 2 feet over. The best varieties were *Scottish Chieftain*, very rich; *Blue Boy*, distinct; *Duke of Cambridge*, bright; *Patriotic*, *Protector*, *Highland Lassie*, *Claribel*, the best light variety; *Victory*, *Juno*, *Brutus*, and the best of all, *Ruth*. For the best six Fancies Mr. Turner was again placed first, and Mr. Quarterman second with plants calling for no comment. In the Zonal classes were very good naturally-grown globular plants, which is a more agreeable form than the pancake mode of training which is often adopted. The best nine plants came from Mr. Cusdon, Mr. Quarterman being second, and Mr. Kimberley, Stoke Nursery, Slough, third; and for six Nosegays, or hybrid Nosegays, the awards went to Mr. Cusdon and Mr. Quarterman. For six gold or silver Tricolors Mr. Dobbin, Worcester, Mr. Waters, and Mr. Turner were placed in the order named; Peter Grieve and W. Sanday in Mr. Turner's group being the brightest and best. In the Bicolor or Gold-and-bronze class the awards went as follows: Mr. Dobbin first, Mr. Pache second, and Mr. Coleman third. The plants generally were not superior, and further, they were staged too high to be seen to advantage. The prizes for Doubles were won—first by Mr. Chadwick with compact plants, *Double Tom Thumb* being remarkably good; and second by Mr. Perkins with large straggling specimens.

In the miscellaneous classes Mr. Vertegans worthily had extra awards for groups of tropical plants and Conifers of great merit. Mr. Williams had also an extra award for a very beautiful mixed group, the centre plant being a fine *Anthurium*, surrounded by Ferns, Palms, *Sonettias*, *Dracenas*, *Crotons*, *Cypripediums*, &c. Messrs. Veitch & Sons had also a rich display, worthy alike of the admiration they received and of the reputation of their name. Amongst them were *Nepenthes* of rare excellence, remarkably fine *Gloxinias*, *Sarracénias*, *Bertolonias*, Ferns, *Agaves*, with *Dracena hybrida* in splendid colour; this fine hybrid should be in all collections. Mr. Corp, Oxford, had beautiful Tea-scented Roses, *David Pradle* evidencing great merit as a rich pink for button-hole purposes. We must notice a handsome gold Fern, *Gymnogramma Alstonii*, from Mr. Brown, Elmdon Hall. It is most distinct and beautiful, the pinnae turning upwards and showing a portion of the under surface, giving the plant the appearance of being spangled with bright gold. It is a distinct and valuable Fern, which Mr. Brown may be proud to own. We close our notes on the plants by an allusion to a remarkable specimen of *Fancy Pelargonium Illuminator* from Mr. Fleming, gardener to R. Hington, Esq.,

Liverpool. It is a marvel of good culture, being a pyramid about 5 feet in height and 4½ yards round the base by admeasurement. It is in perfect health, and covered with flowers and opening buds. Probably it is the finest plant of the kind which has ever been exhibited. We now glance briefly at the

ROSES.—The best varieties for exhibition purposes were so fully noticed last week at the Crystal Palace and the Alexandra Palace Shows, that an enumeration of the Roses now exhibited would amount to little more than a repetition and could serve no useful purpose. Many blooms had been injured by the rains, but yet some grand boxes were exhibited. In Class 47, for seventy-two single blooms, for £10 and the twenty-five-guinea silver challenge cup, Messrs. Cranston & Mayos, King's Acre, Hereford, won with a collection such as has seldom been equalled. In size, colour, and freshness they were alike excellent. In this class also the champion Rose of the Show, for which a special prize was offered by T. Laxton, Esq., Stamford, was selected. It was a magnificent *Senateur Vaise* to which this high honour was awarded. Mr. Cant was placed second; Messrs. Paul & Son third; and Messrs. Whitten & Davison fourth. There were three other competitors. For forty-eight varieties, three trusses of each, Mr. Turner, Slough, won with grand blooms of uniform excellence. Messrs. Cranston & Mayos were second, and Messrs. Paul & Son and Mr. Cant being equal third. This was a glorious class, massive and brilliant. For twenty-four Hybrid Perpetuals of three trusses each, were thirteen competitors, Mr. Prince, Oxford, winning with a princely contribution, the other awards going to Mr. Cant, Messrs. Cranston and Mayos, and Mr. Turner in the order named. In the nursery-men's class for twenty-four single blooms fifteen competed, the honours falling to Mr. Turner, who staged really grand blooms; Mr. Prince, Messrs. Cranston & Mayos, and Mr. Cant respectively. In the class for twelve Tea-scented Roses Mr. Cant won, followed by Messrs. Paul & Son and Mr. Prince in the order named, who all staged boxes of superior merit. We now come to the amateurs' classes. For the best forty-eight single blooms the first prize and the twenty-five-guinea silver challenge cup was won by Mr. Davis, Wilton, Salisbury, with an extraordinary fine collection. Mr. Baker, Heavitree, being second with blooms a trifle too much expanded, but splendid in colour and foliage; Mr. Staite, gardener to the Rev. C. Evans, Solihull, was third; Mr. Laxton having the fourth place. Fourteen competed. For thirty-six blooms twenty entered the list, the honours being won in the order following—Mr. Mayo, Oxford; Mr. Davis, Mr. Evans, and Mr. Brown. In Mr. Mayo's collection was a lovely bloom of *Miss Ingram*, all the boxes being very good. For twenty-four blooms were no less than twenty-seven competitors, Mr. Parnell, Rugby, winning first honours with a grand lot; Rev. C. Evans being second; Mr. Davis third; and Rev. W. Benn, Churchover Rectory, fourth. For twelve blooms were twenty-five competitors, Mr. Parnell being placed first; Mr. Jowitt, Hereford, second; Mr. Staite, Solihull, third; and Mr. Gould, Mortimer Vicarage, fourth. The merit in this class was as great as the competition. For twelve Tea-scented Roses fourteen competed, first honours going to Mr. Jowitt, second to Mr. Laxton, third to Mr. Mayo, and fourth to Mr. Evans, with lovely blooms of popular varieties.

For the best twelve Roses of 1872, 1873, or 1874, Mr. Turner won first honours, followed by Messrs. Paul & Son, Mr. Cant, and Messrs. Cranston & Mayos in the order named. Fourteen competed. For six blooms of the same years Mr. Cant was first, Messrs. Cranston & Mayos second, Messrs. Paul & Son third, Mr. Corp fourth. In the above classes many grand Roses were shown, Mr. Laxton having the best blooms of *Madame Lacharme* we have yet seen. In the open class for twelve single blooms Mr. Corp was placed first, Messrs. Cranston & Mayos second, and Mr. Turner third. For twenty-four pot Roses Messrs. Paul & Son had no rivals. In the classes for twelve blooms of special standard varieties Mr. Paul was first for *Alfred Colomb*; Cranston & Mayos and Messrs. Paul & Son being respectively first and second for the *Duke of Edinburgh*; Mr. Jowitt and Messrs. Perkins & Sons for *Madame La Baronne de Rothschild*; Mr. Turner and Messrs. Davison & Whitten for *La France*; Messrs. Paul & Son and Mr. Turner for *Marie Baumann*; Mr. Cant and Mr. Turner for *Maréchal Niel*; and Mr. Cant and Mr. Turner for *Devonensis*. Some of the collections were not super-excellent, while others, and especially those last named, were very fine indeed. In this show of Roses over five thousand blooms were exhibited, many of them of the highest quality, and not surpassed by any show of the season, except, perhaps, that at the Crystal Palace. It was a great and grand exhibition, and received the lion's share of attention by the general visitors.

In the nursery-men's class for eighteen bunches of cut flowers Messrs. Cole & Sons were placed first, Mr. Perkins second, and Mr. Kimberley third; the corresponding class for amateurs bringing to the front Mr. Chapman, Mr. Fox, and Mr. Webb. In the open class for eighteen bunches of hardy flowers Mr. Perkins was first, Mr. Chadwick second, and Mr. Kimberley third. Than these collections perhaps none more beautiful have

ever been staged. For Carnations and Picotees Mr. Turner, Slough, and Mr. Hooper, Bath, were the successful competitors. Bouquets were well represented, twenty-six competing "bridal" and "opera." For the best bridal bouquet Mr. Perkins was first, Messrs. Feltos & Sons second, and Messrs. Turner Brothers, Basnett Street, Liverpool, third. They were admirable examples of tasteful arrangement, but were fully too large. For the best opera bouquet Messrs. Pope & Son were first, and Mr. Cypher second, with artistic combinations of choice flowers, Messrs. Feltos & Sons being third; an extra being awarded to Mr. Jackson. Some of these were too heavy, but on the whole they were admirably set up.

The arrangements of flowers for table decoration were an excellent display, there being thirty-two glasses, none of them being inferior, while most of them gave evidence of consummate taste. For three pieces arranged for the table Mr. Cypher was first; Mr. Cook, gardener to Mrs. Abercrombie, Cheltenham, second; and Mr. Jackson third. For a centre-piece Mr. Cypher was again placed first, Turner Brothers second, and Mr. Jackson third. Grasses played a very important part in these masterly arrangements. For the best button-hole bouquet twenty-three competed, Messrs. Pope & Son being placed first for the smallest and best, Mr. Finch being second, Turner Brothers third, and Mr. Cypher fourth. A small Rose bud, a sprig of Forget-me-not and Bouvardia, with a little Fern, found most favour with the Judges and public alike. In the class for skeleton leaves Mr. John Kaye, Didbury, Manchester, exhibited six stands, and had the first and only prize awarded. If the three prizes had been grouped in one it would have been no more than this exquisite collection merited.

#### FRUIT.

Commencing with Pines we find for two Queens, that Mr. Meredith, gardener to Viscountess Downe, Baldersley Park, Thirsk, secures the first place with handsome, plump, fine-conditioned, small-crowned fruit; Mr. Miles, gardener to Lord Carrington, Wycombe Abbey, being second with fully as large but not quite such perfect fruits. For the best fruit of any other variety Mr. Coleman had the first award for a large fruit of Providence. For the best six Pines Mr. Meredith was again in the front place with beautifully ripened medium-sized fruit, Mr. Miles being placed second. The Pines generally were useful well-finished table fruit, of which twenty-four were exhibited.

Grapes, of which sixty bunches were exhibited, were more remarkable for quality than size, and were as a rule highly creditable to the growers. For the best three bunches of Black Hamburgs Mr. Coleman, gardener to Earl Somers, was placed first with examples quite worthy of himself. The bunches were of good size and handsome shape, the berries being fine and as even as if cast in a mould, with colour and bloom perfect. Mr. Wallis, gardener to A. Mundy, Esq., Shipley Hall, Derby, was second with very nice bunches; Mr. Bannerman being third on the list with larger bunches and berries, but the latter being rubbed in transit detracted from the appearance of otherwise fine Grapes. For the best three bunches of any other variety of black Grapes Mr. Coleman had the first place with Black Prince, the bunches being a foot in length, and the berries perfectly regular and as black as jet. Mr. Wallis was second with excellently finished Black Frontignan; Mr. Evans, gardener to C. N. Newdegate, Esq., M.P., Arley, Nuneaton, being third with very good Black Prince. For the best three bunches of Muscats Mr. Bannerman was first with bunches heavy, full, regular, and finely finished; Mr. Fleming, gardener, Sandhays, Liverpool, having the second place. For any other variety of white Grapes Mr. Bannerman was first with exceedingly fine Foster's White Seedling. Mr. Coleman second with capital White Frontignan, Mr. Oushon being third with very large but very much polished Buckland Sweetwaters. For a collection of six bunches Mr. Bannerman had the first place with Madresfield Court, Black Prince, Black Hamburg, Foster's White Seedling, Muscat of Alexandria, and Buckland Sweetwater. These were all good and set up in excellent order; so also was the second-prize collection from Mr. Coleman.

For six Peaches Mr. Coleman had again the first place with very fine Grosse Mignonne, Mr. Jackson, Tixall Hall, Stafford, being second with excellent Early Yorks, and Mr. Barnwell third with fruit large but pale of Noblesse. For Nectarines Mr. Parks, gardener to J. Marriott, Esq., had the first place with Elruge, Mr. Grant being second, and Mr. Bannerman third. The whole of the dishes contained good and well-coloured fruit.

For the best dish of Black Cherries Mr. Miles had the first place with Black Eagle, extra fine; Mr. Maher, Stoke, being second; and Mr. Clarke, Studley Royal, third. For Whites Mr. Cox, Madresfield, was first with Elton, Mr. Miles being second with White Heart, and Mr. Maher third.

Strawberries, of which were seventy dishes, of twenty-five fruits each, were, perhaps, the best feature of this section. For the best dish of the British Queen or Dr. Hogg type the first award went to Mr. James, Kenilworth, for a grand dish of Dr. Hogg, Mr. Cox and Mr. Coleman being second and third respectively with excellent dishes of the same variety. In the any other

variety class Mr. James was first with immense fruit of Oscar. Mr. Winston, Kenilworth, being second, and Mr. Taylor, Malpas, Cheshire, third, for remarkably fine fruit of Sir J. Paxton. Mr. Turner, Slough, was deservedly awarded an extra prize for thirty-six varieties. Messrs. James Veitch & Sons also exhibited a collection, amongst which were James Veitch very large, Biotom Pine, and other popular sorts. This was a very fine collection. An extra award was also made to Mr. Baker, gardener to G. Moore, Esq., Appleby Hall, for plants in pots bearing a good crop of ripe fruit.

Malons. Of these twenty-five good fruits were exhibited. For the best Green-fleshed variety Mr. Coleman had the first place with a fine and richly-flavoured fruit of Eastnor Castle; Mr. Tudgey, gardener, Kenwick, being second with a "seedling;" and Mr. Finlay, gardener to Col. North, Bamby, third with Gilbert's Green-flesh. For the best Scarlet-flesh Mr. Maher, Stoke Court, Slough, had the first award with a beautiful unnamed oval-shaped fruit; Mr. Brown, gardener to Earl Howe, being second; and Mr. Coleman third, both with Read's Scarlet-flesh.

We now come to the last and greatest class of this section of the Exhibition—viz., the collection of eight dishes of fruit, for which £10, £7, and £5 were offered, with the 25-guinea silver challenge cup to the winner of the first prize. Here Mr. Coleman reaped the reward of his skill, and being the second time of securing the first honours, the cup became his own property. His collection embraced a nice Pine, splendid Black Hamburg and good Muscat Grapes, Peaches, Nectarines, Figs, a fine Eastnor Castle Melon, and superior President Strawberries. Mr. Clarke, Studley Royal, was second; and Mr. Bannerman third with admirable collections of nearly the same kinds of fruits. Two others competed, and the whole of the collections were highly creditable contributions.

#### VEGETABLES.

Last but not least in importance we come to this section, and nowhere in the Exhibition were more creditable examples of culture to be seen. For the prize of £5, and the twenty-five-guinea challenge cup added, the best ten dishes were from Mr. Miles, gardener to Lord Carrington. The trophy now becomes Mr. Miles's own property. The collection comprised James's Prolific Peas, Canadian Wonder Beans, Turnips, Carrots, Onions, Tomatoes, Cauliflowers, Asparagus, Globe Artichokes, and Potatoes. There was not a failing dish in the collection, each being nearly perfect of its kind. Mr. Holder, Prestbury, was second—a collection of considerable excellence; third honours going to Mr. Turk, Cheltenham. The roots in this exhibit were especially very superior. For the best eight dishes Mr. Arkell, Cheltenham, had the first place, Mr. Bloxham, gardener to Sir P. Duncan, Bart., being placed second, and Mr. Richardson third with superior collections of the same sorts as in the preceding class. For the best three dishes of Kidney Potatoes Mr. Miles was first with Early Rose, Mona's Pride, and Milky White, Mr. Smith being second with Extra Early Vermont, Lapstone, and Veitch's Ashleaf, Mr. Taylor having the third place. For Round sorts Mr. Richardson, Boston, had the first award with Early King, "Paxton's," and Carter's Main Crop; Mr. Taylor being second with Early Rose, Rector of Woodstock, and Main Crop; Rev. Mr. Bell, Bampton, having the third place. For the best single dish of Kidneys Mr. Richardson won with Mona's Pride, Mr. Bates being second with Myatt's Prolific, and Mr. Taylor third—Rivers' Royal Ashleaf; the awards for the best dish of round sorts going first to Mr. Brown, Gosport, Hull, with Rector of Woodstock; second to Mr. Gullich, Dosthill, with Chatterton's Prolific; and third Mr. Madely, Handsworth, with Rector of Woodstock. In these classes ninety dishes were exhibited of fair average quality, Rector of Woodstock making the most handsome dish.

Peas were remarkably good. For the best three dishes Mr. Richardson won with Omega, G. F. Wilson, and James's Prolific; Mr. Cox, Madresfield, being placed second, and Mr. Arkell third. For the best single dish Mr. Cox won with the Duchess of Edinburgh, Mr. Arkell being placed second, and Mr. Smith, Cheltenham, third. The prizes offered by Messrs. Hurst and Sons for Mr. Laxton's Peas fell first to Mr. Richardson, second to Mr. Miles, and third to Mr. Cox. These were very fine, the best being Omega, Popular, Filbasket, Superlative, and Williams I. Prizes were also given for fifty pods each of Unique to Mr. Miles, Dr. Hogg to Mr. Bailey, and Supplanter to Mr. Miles. In the Pea classes Dr. Hogg, Connoisseur, Carter's Commander-in-chief, James's Prolific, and Omega showed to advantage.

Of the remainder of the vegetables we can only say that Onions were immense and clean bulbs, White Tripoli being in every instance to the front, the awards going to Messrs. Miles, Cox, and Turk. Cucumbers, of which twenty-five brace were exhibited, were noticeable for quality rather than size. Tender and True distanced all competitors, Mr. Cusson having the first place with handsome medium-sized fruit, Mr. Maher being placed second, and Mr. Holder third. In Dwarf Kidney Beans Canadian Wonder was the best of all the varieties; Mr. Bloxham was placed first, and Mr. Cusson second. Oakley was, for

the 1st of July, good, Messrs. Turk, Miles, and Holder standing in the order named. Carrots were bright and clean, Nutting's Nantes Horn from Mr. Miles being especially worthy of mention. Turnips, Lettuces, and Cabbages were generally too large, the awards falling to the smallest specimens. Cauliflowers were mostly coarse, yet some handsome heads were staged, especially by Mr. Miles. Broad Beans were good, Seville Longpod from Mr. Cox being the best, followed by Selected Longpod from Mr. Miles. Baskets of salads were admirably exhibited, Mr. Holder being placed first for a basket embracing almost everything in the salad world. Asparagus was large, Mushrooms poor, and Tomatoes splendid, Messrs. Miles, Coleman, and Cox standing in the order named. A dish of Carter's Green Gage was conspicuous by its excellence: it is a distinct and fine variety. The remainder of the awards will be found in our advertising columns.

The implements and appliances were numerous and excellent. We have only space to note that silver medals were awarded to S. Deards, Harlow, Essex, for improvement in coil boiler; Cowan Patent (Limited) Company, for improvement in limekiln boilers; G. Green, Birmingham, for rusticated garden furniture; J. Unite, London, for square tent without centre pole. Bronze Medals:—G. H. Harris, Birmingham, for three-wheel hose collector; Kneebone & Timmis, Birmingham, for garden plough; P. J. Perry, Banbury, for improved machinery for greenhouse ventilation; N. Voise, Horley, Surrey, for three-light Cucumber frames; W. Barrow & Sons, Nottingham, for rusticated garden furniture; W. Jones, Stourbridge, for improved joint for hot-water pipes; J. Watson, St. Alban's, for horticultural stoves; C. Yeats, Mortlake, Surrey, for garden labels. Highly commended:—T. G. Messenger, Loughborough, for plant-protector, with the improvement recommended; J. Clarke, Stourbridge, for plant-protector; J. Crowley & Co., Sheffield, for improvements in the gold-medal lawn-mowers; W. J. Epps, Lewisham, Kent, for sample of peat.

Yet although the Exhibition was so good in extent and quality, and the arrangements were so complete and satisfactory, another prime element was necessary to ensure success. Of this we regret to say that on Thursday, Friday, and Saturday thunder and rain were prevalent, and it was not until Monday, the last day of the Exhibition, that anything like flower-show weather set in. We are much afraid it came too late to make the success commensurate with the preparations and objects of this great horticultural gathering of which the midland counties have just reason to be proud.

## ROYAL HORTICULTURAL SOCIETY.

JULY 7TH.

THIS being designated the Cut Rose Show, we place the Roses first in our report, but the display was a very poor one, many of the classes being empty. The principal exhibitors have done so much and done so well that they can afford to rest on their laurels; the transitional state of the Society, too, is such that full, free, and hearty exhibiting is out of the question: hence the poor response to the prizes which are offered by the Society. Mr. Prince brought some grand Roses, and just saved the name of the Show. The trade fairly triumphed over the Society; for the competition for the prizes offered by Messrs. Carter & Co., Sutton & Sons, and Hurst & Sons were the great feature of the Exhibition.

In the class for seventy-two single blooms (nurserymen), Messrs. Mitchell & Sons, Piltown Nurseries, Uckfield, had no rivals. The first prize was awarded. The blooms were small, and none of them call for special note. For forty-eight Roses, three blooms of each (nurserymen), Mr. Prince was placed first for admirable blooms in triplets. Mr. Fraser, Lea Bridge Nursery, Leyton, also exhibited in triplets, but the blooms were too much expanded. He had an extra prize. In the class for twenty-four Hybrid Perpetuals only (nurserymen), Mr. Prince exhibited a collection of fine quality.

For forty-eight single blooms (amateurs), T. Laxton, Esq., Stamford, was first with very charming blooms, not large, but of great excellence, Louis XIV. being the richest Rose we have seen this year; Marie Remy, Beauty of Waltham, Annie Laxton, Exposition de Brise, Alfred Colomb, Maréchal Niel, and Miss Ingram were all in very fine condition; Mr. Chard, gardener to Sir F. Bathurst, Clarendon Park, Salisbury, being placed second.

For twenty-four single blooms (amateurs), T. Laxton, Esq., Stamford, again had the first award with a box of beautiful blooms, fresh, clear, and bright. Felix Genero, Marie Van Houtte, Mdle. Marie Cointet, Emile Hausburg, La Ville de St. Denis, Marie Baumann, and Xavier Olibo comprised the best blooms. Mr. Chard being placed second with very nice but irregular-sized blooms.

For twelve single blooms (amateurs), Mr. Bidout, gardener to W. S. Brown, Esq., Woodhatch, Reading, was first with a highly meritorious collection. Sénateur Vaisse, Comtesse d'Oxford, Duc de Rohan, and Annie Wood were exceptionally rich; Queen Victoria, La France, and Mdle. Thérèse Levet being good amongst the light colours. Mr. Chard had nice boxes and the

second award; Mr. Tranter, Upper Assington, Henley-on-Thames, being placed third.

For twelve Tea-scented Roses (nurserymen), Mr. Prince was alone, and had the first prize. He exhibited lovely blooms of Catherine Mermet, Souvenir de Paul Neron, Marie Van Houtte, Belle Lyonnaise, Perle de Lyon, &c.

For twelve Tea-scented Roses (amateurs), T. Laxton, Esq., had the first prize with a collection, but the blooms had been injured by the weather. Perle de Lyon was very rich; America, Niphotos, Marie Van Houtte, and Devonians were the best.

In the class for twelve Roses distinct (open), Mr. Tranter had one of the best blooms of La France ever exhibited, otherwise the collection was not noteworthy: it had the first award. For twelve blooms of Paul Neron, Mr. Prince was first with large and well-coloured blooms; Messrs. Mitchell & Sons, Piltown, being second with blooms a little more expanded. This huge Rose shows to advantage in masses. For twelve blooms of Mme. La Baronne de Rothschild Mr. Prince was without a rival with splendid blooms; indeed no finer have been this year exhibited; he had the first award. For twelve blooms of Maréchal Niel Mr. Laxton exhibited blooms very rich in colour, but not of high quality, having received injury by wet; he had the first award. For twelve blooms of Marie Baumann.—This fine Rose was grandly set up by Mr. Prince, the best bloom in the box being equal to the champion bloom at Birmingham of Sénateur Vaisse; he was the only exhibitor, and had the first award.

For one basket of 2 feet in diameter, filled with cut blooms and Rose foliage, Mr. Chard had a very good and well-arranged basket of fresh blooms and good foliage, to which the first prize was awarded.

Single Rose, any kind, in glass stand, Mr. Prince was first with a beautiful Marie Baumann, Mr. Chard being second with a nice La France.

### PRIZES OFFERED BY MESSRS. JAMES CARTER & CO., HIGH HOLBORN.

THE greatest prize of the year, the fifty-guinea "Carter" cup, with £10 added for the gardener, with £7, £5, and £3 as the minor awards, was competed for on this occasion. Formerly this trophy had to be won three times to secure permanent possession, but now the Holborn firm, with a liberality as great as their enterprise, surrender it to the employer of the gardener winning it the first time. For this great prize there were nine competitors. Finer vegetables have seldom been seen. The Judges, Mr. Barr, Mr. Douglas, and Mr. Woodbridge, took infinite pains, and were long in deciding, and eventually awarded the splendid prize to the Most Noble the Marquis of Exeter, and Mr. Gilbert, the gardener, received the congratulations of his friends.

Mr. Gilbert's collection was exceedingly fine, and was beautifully arranged. Peas, Onions, Beans, Turnips, Carrots, Lettuces, Potatoes, Cauliflowers, and Globe Artichokes were splendid; Melons, Cucumbers, Celery, Mushrooms, Asparagus, and Parsnips being very good. The second prize was awarded to Mr. Arkell, gardener to A. J. Skinner, Esq., Swindon Road, Cheltenham, for a really grand display. It was so nearly equal to the Barghley collection that it was only by carefully adding up the points of merit of each dish that its true place was found. The third prize went to Mr. Pragnell, gardener to G. D. W. Digby, Esq., Sherborne Castle, Dorset, for a great and good collection, difficult to find fault with except on the general ground of a lack of finish and refinement which pervaded the others. The fourth prize was awarded to Mr. Osman, gardener, the Metropolitan School, Sutton, but certainly not because it was the best, but because it was in strict confirmation with the conditions. It appears that in previous years two sorts of Melons were permitted; but this year those who had more than Little Heath committed a fatal mistake. Messrs. Carter would do well to exclude Melons altogether from a collection of vegetables. Their production is an insuperable barrier to many really good vegetable growers competing. But for this mishap the awards must have been different, for Mr. Lumsden and Mr. Cox—previous holders of the cup—both had collections much superior to that of Mr. Osman. For an innocent error a penalty is paid by some of those who unfortunately committed it. Mr. Chard and Mr. Cross also had collections of great value.

For the prizes offered for the best six dishes of Peas, Mr. Cross, gardener to G. B. Lousada, Esq., Peak House, Sidmouth, had the first award, Mr. Pragnell being second. The principal sorts were James's Prolific, Commander-in-Chief, G. F. Wilson, and Hundredfold, and splendidly were they exhibited.

Messrs. SUTTON & SONS offered prizes for six dishes of Peas, of which finer examples were perhaps never exhibited than those of Mr. Pragnell and Mr. Elliott, who were first and second respectively. The principal varieties were Duchess of Edinburgh, Duke of Edinburgh, Giant Emerald, and Best of All.

Messrs. HURST & SON also offered liberal prizes for Mr. Laxton's new Peas. These were exhibited as growing on the haulm—that is, the plants were brought. They were a distinct feature, but time only permits us to say that the prizewinners were Mr.



Cross, Mr. Miles, Mr. Chard, and Mr. Osman; and the sorts William I., Unique, Dr. Hogg, Supplanter, Omega, and Fillbasket. This firm also offered prizes for the best six dishes of Mr. Laxton's Peas, which were won by Mr. Miles, Mr. Cross, Mr. Smith, seedsmen, Romford, and Mr. Cox with collections of great excellence.

We may say generally that the vegetables which competed in the several classes were in the highest degree creditable to the raisers, vendors, and growers; indeed, but for them the Show would have been a complete failure, but with them it was highly interesting and instructive.

**FRUIT COMMITTEE.**—Henry Webb, Esq., in the chair. Mr. William Paul of Waltham Cross sent a seedling Strawberry called Waltham Seedling; a large bright-coloured fruit, and of a conical shape, inclining to cockscomb. The flesh is very firm, like *La Constante*, and having been grown in the garden at Chiswick Mr. Barron reported that it possesses very hardy habit, and is an abundant bearer. It was awarded a first-class certificate. Mr. Miles of the Gardens, Wycombe Abbey, brought a dish of Early Beatrice Peach ripened against an open wall. The fruit, though not so large nor so highly coloured as when grown under glass, was quite ripe, and considering that these were gathered on the 7th of July it is perhaps the earliest Peach from an open wall ever grown in England. A vote of thanks was awarded to Mr. Miles. He also exhibited a dish of the Tomato-shaped Capsicum, which in shape is similar to a Tomato, but much darker in colour. From the garden of the Society Mr. Barron exhibited the Early Orleans Gooseberry, which was pronounced to be the best early Gooseberry. It was awarded a first-class certificate. Mr. Mills of Chiswick exhibited Monarch, a variety grown in preference to any other by the London market gardeners because of its great fertility, large size, and its freedom from the attacks of birds. Mr. Mills also sent fruit of two varieties of Currants, and received a vote of thanks. Mr. J. Hatton, 98, Goswell Road, sent fruit of Allen's Golden Gem Melon. Mr. W. Gallot, Bradford Gardens, Dorchester, sent a seedling Melon called Princess Alexandra; Mr. James Groom, Henham Hall, Wangford, also sent a seedling Melon, but none of these were of sufficient merit to obtain a certificate.

Messrs. Carter & Co., Holborn, sent fruit of Marquis of Lorne Cucumber, exhibiting a remarkable roughness of surface set with spines. These were only found on one plant, which was in perfect health. Mr. J. McLellan, The Gardens, Grove House, Tottenham, sent a seedling Cucumber of handsome shape, but not differing from others in cultivation. Mr. Sage of Ashridge Gardens brought a brace of fine fruit of Tender and True Cucumber. Mr. Barron exhibited plants of the Seville Long Pod Beans, laden with long-podded fruit. Its great recommendation is its earliness and prolific bearing. He also showed bunches of Early White Naples, New Queen, Neapolitan, Markajole, and Nocera Onions. Messrs. Carter & Co. exhibited the American Gathering Lettuce which has originated in Germany, raised by Mr. Heinemann of Erfurt, a curled brown semi-cabbage variety, very crisp and brittle.

Mr. Richard Dean of Ealing sent specimens of Early Snowball Cauliflower, very similar to Early Erfurt, which was represented to have been sown on the 3rd of March. It was decided that it be tried at Chiswick, and that in the meantime Mr. Barron be requested to investigate the conditions under which the plants were grown.

**FLORAL COMMITTEE.**—Dr. Denny in the chair. Mr. Bull exhibited a collection of *Lilium* in bloom, *Phalenopsis erubescens*, and *Hydrocotyle nitidula*. Mr. Bateman exhibited blooms of *Lilium Bloomerianum oscillatum*, and had a vote of thanks awarded. Double *Clarkia elegans*, Salmon Queen, and Purple King, sent by Mr. Hardy, Stour Valley Nurseries, Bures, Essex, had first-class certificates awarded. Mr. Croucher, Sudbury House, had a vote of thanks for *Masdevallia Harryana* with thirteen fine blooms; as also had Mr. Douglas, gardener to F. Whitbourn, Esq., for magnificent blooms of *Cattleya gigas*. First-class certificates were awarded to Messrs. J. & C. Lee, Hammersmith, for splendid seedling *Begonias* Coltoni and Rodwelli, with large blooms of rich orange scarlet. Mr. George sent Zonal *Pelargoniums* Sultan of Zanzibar and Criterion. Mr. R. T. Vetch, Exeter, had a vote of thanks awarded for well-grown plants of *Nertera depressa*. A first-class certificate was awarded to Messrs. T. Cripps & Son, Tunbridge Wells, for *Clematis Fairy Queen*, a very large bluish variety. Mr. Laxton sent double *Pelargoniums*; and Mr. Dean, Canterbury Bells and Stocks of good quality.

### THE ENOTHERAS.

The Evening Primroses form a genus of very beautiful plants for the decoration of our flower beds and borders. A few of them are of trailing habit and are half-hardy. These, of which *E. Drummondii* may be mentioned, are suitable for small beds and for hanging over the edges of rockwork and rustic baskets. The hardy herbaceous section are also of dwarf habit

and are interesting and attractive border and rock plants. (*E. caespitosa*, *E. fruticosa*, *E. speciosa*, and others are all adaptable to this mode of culture.)

The hardy biennials, of which we give a typical representation, are, however, the most showy, their tall spikes of soft primrose-coloured flowers which open in the evening being very beautiful; the foliage of these plants is also clean and bright, and the plant's habit is stately and agreeable. For planting in Rhododendron beds and for imparting a cheering touch of colours to shrubberies in the evening few plants are better suited than are these stately *Enotheras*. Neither have

Fig. 4.—*Enothera*.

we any plants of more easy culture. In many gardens when once established they will take care of themselves, yet they seldom increase so fast as to be an incumbrance. They flourish in the full sun and also under trees better than do most tall-growing plants. In wet weather they seldom are injured, while on hot dry banks they will remain fresh after most plants are withered by drought. At this period of the year many gardens are made attractive by their towering spikes, and in the twilight especially no plants are more striking. For Mr. Taylor's ideal semi-natural garden these plants are amongst the best can be used. They are not to be used as cut blooms for the exhibition in the daytime, but it is for the decoration of the border and shrubbery at eventide that these good old plants are worthy of extended culture.

They are increased by root-division in the autumn and by seed. Seed sown at the present time in the open border, and the seedlings, when large enough, transplanted will grow into

fine blooming plants for the following season. It is a little singular that these gay, distinct, and useful plants are not more generally employed. They are certainly worthy of culture, and when seen in association with the sombre foliage of shrubs in the evening are always admired.

### STRAWBERRIES.

Now the Strawberry season is in full swing I think the subject might with advantage be again ventilated, as it is not only the fruit-bearing period, but also the time for making preparations for another season. The readers of the Journal are aware that this subject cropped-up some months ago, and was pretty well discussed at the time, and the only apology I have to make in recurring to the subject again is merely a reminder to refresh the memory, as it often happens that when a subject of this kind is discussed out of the season of preparation it is apt to be forgotten, and now another season's experience will have been gained as to the merits of different varieties, for what is eulogised one season is decried another.

The nature of the soil is one important element in Strawberry culture, water another; a similar soil may exist in widely-separated localities, and yet have very different results with the same varieties. The difference between a dry and a wet locality will effect this. I am located on a poor hungry soil with a gravelly subsoil, but in ordinary seasons most kinds of Strawberries do pretty well, but many sorts in dry seasons differ much in quality. On this soil I find it necessary to make fresh plantations about every third year.

British Queen still maintains its high reputation, and in ordinary seasons does well, but it is astonishing what a difference a wet and a dry season makes in the quality of the different kinds of fruit, such as Sir Charles Napier, Oscar, and Sir Joseph Paxton. I find that if the fruit-swelling period is dry the quality of the fruit deteriorates considerably, while British Queen and Dr. Hogg seem to retain their high crisp flavour. President seems to be in its proper element, and stands the drought better than most kinds. I must not forget the old Keens' Seedling. I have heard of other varieties which are considered better for preserving purposes, but I very much question if there is a better general-purpose Strawberry than the veteran Keens' Seedling, and I am of opinion that the name will be a household word for some years to come.

Strong runners taken now and planted in well-prepared ground ought to bear fruit next season; if deferred much later they will not do much good before the second year.—G. R. ALLIS.

### DEUTZIA ORENATA FLORE-PLENO.

I THINK the above-named plant is not so popular as it might be, considering the usefulness and beauty of the flowers at this season and likewise when forced. I propagated a quantity some years ago and planted them out in the shrubberies and borders here, and I have been rewarded each year with a beautiful display of white flowers; for grown underneath the shade of trees or in shady shrubberies—where it grows and blooms as well as in the sun—the flowers are almost pure white, but in the sun the flowers will be slightly tinted with rose.

Anyone having to supply a quantity of white flowers at this season for decorating vases, making bouquets, or the more solemn ceremony of making a wreath of flowers to place on the grave of a friend or relative, will find this plant of great assistance.—J. A., *Hill Grove*.

### FURTHER REMARKS ON LATE PEAS.

THE remarks of "A NORTHERN GARDENER" on late Peas, page 486, vol. xviii., are well worth studying, but I fear if he travelled southward he would find great difficulties of having them so late as he speaks of, and it may be some consolation to him to know that while he can put a dish of green Peas on the table gathered from the open ground a few days before ice was strong enough for skating on, and keep them for use till that day, a feat was accomplished which has few if any parallels in the south of England; yet I fully believe every word he says on the matter, and have a perfect recollection myself of seeing a dish of Peas at a horticultural show in the north about the middle of November that were said to be the produce of seed ripened that year and sown again that same year, in other words two crops in one year. I do not remember if it was from the same plot of ground, but it easily could have been;

certain it was they were there, and in fairly good order. The variety I think was an early white one, possibly the Early May or Charlton, the parents of most of our early Peas. The season was, if I remember right, 1828; certainly not 1826, which was the hottest and driest summer I ever remember; in which two crops of ripened Barley from the same field were not uncommon even in cold out-of-the-way places, and the second crop ripened as well as the first.

But to the matter of late Peas. I fear we sojourners of the sunny south have no chance of expecting them so late. Artificial watering may possibly do something for them, but even that will not always scare away mildew—a fell enemy to the Pea late in the season; but the mode recommended by our correspondent is the only way to expect a good result; and although I do not remember ever to have witnessed the Peas sown in sunk trenches, I have no doubt the plan is a good one where there is depth of really good soil, but a plan adopted by an old gardener many years before the first Reform Bill became law deserves to be mentioned here; for, like "A NORTHERN GARDENER," he sowed the rows wide apart, but instead of making one drill for the seed he made two about a foot or 15 inches apart, and in dry weather placed a ridge of dung along the space between them before they were up, supplying them with short sticks at first and long sticks afterwards, adding more dung at the sides in the way of mulchings, and watered the whole when required. The advantage of this plan will be apparent to everyone: the roots of the crop being divided occupied more ground, and consequently benefited accordingly, as I do not remember of ever seeing finer crops of Peas, which were of good quality. This plan I have frequently followed; but when a dry hot summer sets in, and the impossibility of supplying them with water follows as a matter of course, all hope for a crop of late Peas is out of the question; but the effort to obtain them is still worth trying, and like many others I have to thank your correspondent for calling attention to it.

Possibly many places in the cool and moist western and northern counties have a better chance than we have in Kent in maintaining a healthy growing vegetation during the dry hot period of the dog days, and Peas as well as Lettuce and other things benefit accordingly; but with us when such dry seasons as 1868 and 1870 occur, when rain in sufficient quantity to support even the Scarlet Runner was not forthcoming, and a short supply the result, it is hopeless to expect Peas to be fruitful, for in practice it is found better to depend on Scarlet Runner and French Beans in the latter part of the summer than on Peas, and cropping is done with that object in view, and although it is but seldom that Scarlet Runners can be served-up fresh to a party of skaters, it is certain they can be retained to a later date than even the Peas.

Again thanking your correspondent for his useful paper on the subject, and agreeing with him on the merits of the variety *Ne Plus Ultra* as a general cropper (for I have not used it very late), I hope his practical remarks will draw out those of others on this useful and interesting subject.—J. ROBSON.

### BELVOIR CASTLE.—No. 2.

#### THE SEAT OF THE DUKE OF RUTLAND.

ALTHOUGH I regard the spring bedding at Belvoir as its most noticeable feature, I do not at all mean to imply that it is followed out to the exclusion of other work. Anyone who knows Mr. Ingram need not be told that whatever department of gardening you look at under his management is sure to be well done, and go where you will you will find the evidences of a master's hand. The Castle stands, as will be seen from the woodcut, on an eminence, and around it the various terraces are arranged with the same object as the gardening on the slopes—viz., to give a cheerful appearance in the earlier months of the year; and the various combinations afforded by the liberal use of *Aubrietias*, *Oxlips*, *Myosotis*, *Sedums*, *Violas*, *Epimediums* (of which latter Mr. Ingram speaks in high terms, and deservedly so) were even, although past their prime, very charming.

The kitchen and fruit gardens, which are about three acres in extent, were, as might be supposed, in a high state of cultivation, and there was, as there is everywhere, something to be learned. Noticing some fine beds of *Frogmore Late Pine Strawberry*, and seeing that the plants were not separate, as is usually the case in good gardens, I was told that it is the only way in which Mr. Ingram finds that he succeeds. Others who find it difficult to grow Strawberries may, perhaps, succeed in

the same way: the exception proves the rule, and so with that which prescribes young plants. Trollope's Victoria bears as well if not better on three and four-year-old plants than on young ones. The walks in the kitchen garden were edged with slate about 1 inch thick on the edge, and while looking very neat afforded no harbour for slugs. Mr. Ingram had also a capital plan for filling up the spaces on walls with Pear trees when trees had become worn out. He had raised a number of seedling Pears, and when these had been tried and found worthless they were planted against the wall in the place where the old trees were, and then grafted right up, so that in a very short time a tree was formed and then the old one was taken away. I may here mention that I saw near here the other day some Apple trees grafted in a similar way all over instead of, as is the usual plan of being cut down and the stump grafted. As the soil is heavy some vegetables require to be grown in a peculiar way. The Potatoes were planted on ridges in single rows—a modification of the plan so often adopted in the wet climate of Ireland and called the lazy-bed system; but

these are not beds, but simply ridges. In the same way Asparagus was grown in ridges, and thus an easy method of forcing in the open ground can be adopted by filling up the spaces between with fermenting material. I recollect seeing something of the same kind adopted at Montrouge near Paris. The houses and vineries were all in excellent order. Plants do not, however, form a feature in this establishment, those being cultivated only which are adapted for decorative purposes, during which they undergo such a system of ill-treatment as requires all the skill of the gardener to resuscitate them.

In the reserve garden were to be found many of the once-decided herbaceous plants, which are here fostered and petted. And here let me subjoin a list of some of those which I noted, and which Mr. Ingram spoke highly of. Some of them were in bloom, others had passed, while some had yet to declare their beauties. *Erodium manescavi*, *Schreberiskia podolica* (very early, white Arabis-like flower), *Potentilla Donbri* (white), *Arum variegatum*, *Geranium subcaulescens* (deep rosy crimson,

Fig. 5.—BALVOIR CASTLE.

dark centre), *Cerastium arvense*, *Veronica pectinata* (very dwarf), *Iberis superba*, *Iberis jucunda* (very lovely), *Campanula soldanella flore pleno*, *Lithospermum Gastoni*, *Spiraea filipendula*, *Alyssum Wiesbeckii*, *Alyssum argenteum*, *Linaria alpina* (Alpine Toadflax, very pretty), *Rhododendron praeox*, *Erigeron grandiflorum*, *Viola striata*, *Epimedium pinnatum elegans*, *E. rubrum*, *E. striatum*, *Dodecatheon giganteum*, *Doronicum caucasicum*, *Polygala chamaebuxus* (pale lemon and bright yellow, very fragrant), *Gentiana verna* and *acaulis*, besides many others well known and extensively used in most gardens where herbaceous plants are cultivated.

Mr. Ingram spent some weeks last year in Norway, of which he gave an interesting account in a contemporary. In a small nook he has brought together some of the *spolia optima* of his journey, including *Sedum evenese*, *Salix polaris* (the smallest tree perhaps known), *Betula nana*, *Thalictrum alpinum*, *Arenaria prostrata*, *Viola bicolor*, *Saxifraga corymbosa*, &c.

I have given but a very imperfect idea of the peculiar characteristics of this princely residence. I have not dwelt on its architecture or its *entourage*, except only as it bore upon horticulture; and have but to add that from Mr. Ingram I re-

ceived the utmost courtesy and kindness, and to Mrs. Ingram I am indebted for the clever sketch of the garden on the slopes. —D., *Deat.*

#### THE PRUNING OF PEAR TREES.

I wish to enter my protest against the barbarous and unnatural system which is now so prevalent of pruning bush Pear trees with the shears in the same manner as is practised with Yews and Portugal Laurels. This practice, besides being most injurious, as I cannot but think, to the health of the tree, exposes only a small surface to the influence of the sun and air, and much diminishes the area from which a crop may be expected. In my opinion, as the result of several years' experience, a thinning-out of the centre of the tree so as to admit plenty of sun from above, combined with a judicious and moderate shortening-in of the side shoots, is the proper mode of culture.

A mulching or top-dressing in the spring, and, if thought necessary, an occasional root-pruning, may also be resorted to; but the grand point is allowing the sun to shine into the



interior of the tree and the air to circulate freely round the branches.—J. C. BARNHAM.

### SUTTON'S RED-SKINNED FLOURBALL POTATO.

In answer to "W. H. A.," who asks what is the parentage of the Red-skinned Flourball Potato, I believe it to be of American origin. In support of my opinion I may state that a friend of mine had a few Potatoes sent from America four years ago before the Flourball was sent out by Suttons; some he gave to a gardener in the neighbourhood, and the remainder he kept growing by the side of the Flourball, and they each fail to discover any difference, nor can I who have noticed them the past two years. I may add that my friend having received his from America without name, called his the Tuscarora.—W. BARR.

### PEACH BLISTER.

We have recently received from one of our correspondents (Mrs. Carlisle), some specimens of Peach blister with the fungus



here and there be detected on the red blister, and this bloom when magnified one thousand diameters linear is seen as shown at a. It is excessively minute as compared with the thickness of the leaf and its component cells; the latter magnified to the same scale are seen at c. The fungus consists of a stratum of fine threads, which throw-up a series of small flask-like bodies (asci) filled with spores, the flasks being mixed with necklace-like growths b, which are clearly a second form of fruit. Each ascus, or flask, contains eight-spores, which at certain moments open at the top, as at a, and discharge their spores (which are analogous with seeds), into the air to continue the existence of the species elsewhere.—W. G. SMITH.

### SUMMER PRUNING.—No. 1.

THE object of all pruning is the origination of new parts, diverting the sap from an over-vigorous to an enfeebled part, and the reduction of barren and the production of fruitful wood. By the first we secure the form in part of the present and ultimate specimen; by the second its symmetry; and by the third the highest quality of produce. Fruit-bearing trees naturally have no pruning other than the browning of herbi-

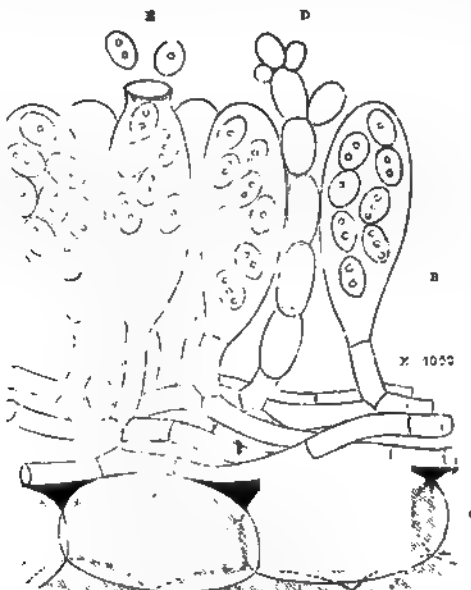


Fig. 3.—PEACH BLISTER WITH ACCOMPANYING FUNGUS (ASCOMYCES DEFORMANS).

(*Ascomyces deformans*) which is said to cause it, in such unusually good condition that we are induced to give an illustration of the latter as seen under the microscope. An editorial opinion has recently been expressed in these columns that the blistering is caused by spring frosts rupturing the sap-vessels, and that the fungus lives upon the extravasated sap. When Mrs. Carlisle's specimens were exhibited before the Scientific Committee of the Royal Horticultural Society, Mr. Smee, who is well acquainted with the disease, expressed his belief that the blistering was caused by an injury inflicted by an aphid, and he has expressed an opinion elsewhere that the fungus is seldom really seen with the blister, but that the aphid is an invariable accompaniment. De Bary, however, and Berkeley say the blister is caused by the fungus, and the former has published a figure of the mycelial threads as seen inside the leaves amongst the cells before the perfect fungus appears upon the surface. However this may be, we must confess that our views range on the side with Mr. Berkeley, and we imagine the reason why the fungus is not invariably seen is simply because in its early condition it is confined to the interior of the lamina of the leaf, and its life may possibly be brief in its perfected state on the exterior. The spawn of the fungus, like the spawn of the Potato disease, is corrosive, and changes the green colouring matter of the cells from the usual healthy hue to a deep blood red.

In the accompanying cut, a shows the Peach blister as commonly seen; when the fungus is present a white bloom may

vorous animals, therefore cultivated and natural trees are not in this respect analogous. Orchard trees are not to be admitted natural, for they at least have a certain amount of time expended upon them in pruning—in giving disposition to the branches, and some occasional after-care in the thinning, otherwise we readily grant orchard trees are the nearest approach to Nature of anything cultivated, and as such are not subject matter for summer pruning. Our remarks, therefore, apply to trees cultivated in gardens as pyramids or bushes trained to walls or espaliers. Limited to space as such trees are, the necessity, if they are to be kept to it in a fruitful state, for pruning arises. It is not in any sense an imitation of nature, but of restraining—causing the trees to conform to the requirements of the cultivator. There is not, perhaps, a more interesting or important operation than summer pruning, forming such a pleasant contrast to winter pruning, which only those having had feet feeling like ice—it may be chilblains—and fingers cold and benumbed, can thoroughly appreciate. I know it will soon be "dog days," when it is hoped any having an hallucination for winter pruning will lose it.

Fruit trees have three descriptions of shoots: leaders, the continuation of stems or branches; side shoots, originated from the branches; and spurs, mainly producing the fruit. We have also laterals, which mean literally any side shoot, but in gardening phraseology laterals are side shoots from growths of the current year. Foreright shoots, which are those proceeding from the front of a branch and at right angles

or nearly so with the wall. Others there may be, but I do not know the term they are recognised by.

Now, fruit trees have two growths, spring and midsummer. The first is the strongest, and in vigorous trees is continued to a period long past midsummer; but upon moderately vigorous trees the first growth is over by the early part or middle of July, and varies somewhat with different trees. Apricots will have the first growth made by the middle of June to its close. Plums follow next, then Pears, and last of all Apples, unless we take cognisance of the Peach and Nectarine, and those of course are next to the Apple in completing the first or spring growths. When the trees are as before stated very vigorous, the spring growth is not complete until a late period, so long-continued is it that there is difficulty in distinguishing the spring from the second growths. The less vigorous the growths the earlier the spring growth is made, and the sooner it is, of course, succeeded by the second or midsummer growth. Between the two is a sort of cessation from growth for a time. The cessation from growth is, though brief, for some purpose which I do not profess to comprehend. It may be the giving of character to the buds (and I could advance much in proof), or as tending to some end in respect of the fruit; certain is it the wood becomes what we term in trees which do not lose their leaves, firm. From the points of such shoots or near them other shoots arise in many cases, not in all, whilst shoots may be originated from other parts which in the first growth have been in a semi-latent state. The shoots so resulting are the second or midsummer growth, and if they proceed from wood of the current year are laterals. The second growth will be continued until a late period, and is not usually productive of bloom buds, seldom I believe in the case of stone fruit, though instances occur of bloom buds being formed upon the second growths of Pears and Apples. The first growths are therefore most momentous; the second are mainly of value in promoting root action, drawing up fresh supplies of sap for the fruit, and elaborating it in a more perfect manner than the leaves of the first growth, whilst they also prevent, by appropriating any excess of nutriment, its being forced into the buds of the first growth, and their premature expansion, as is occasionally the case with Pears, Apples, Cherries, and Plums, the bloom buds expanding in summer, and the hopes of a crop the following year being lessened. Such instances are not uncommon, and those having any experience at all of trees on the dwarfing stocks, cannot but be more or less familiar with two blossomings in a season, frequently a little here and there, but occasionally a full display.

It is not necessary to do more than note the evil calculated to be done by practising summer pruning at an early period of the first growth, or before the leaves intended to be stopped to are full-sized, for if the tree be very vigorous it will only be resultant of two or more shoots from below whence the stopping was done, and the tree is as full of sappy shoots in a year as it was before the stopping. It is only just to state that a very vigorous fruit tree neither by early and severe stopping, or even moderate pinching at a later period is to be brought into a satisfactory fruiting state, it requires pruning at the other end—i.e., the roots, and by reducing the supply of sap inducing a less plentiful amount of fruitless wood or spray.

If we operate upon a very moderate-growing tree very early in the season we liberate the sap, and cause it to be forced into parts expected to form fruit buds, and thus acted on early they may start into growth instead of developing into fruit buds, or should they already be of the latter character we may hasten their development, their maturity being completed at so early a period in summer that they are forced into flower by there not being present other means of appropriating the sap. Early pinching for other important considerations we do not advise, not a few of the many mishaps to fruit trees accruing from want of foliage at an early period, and to lessen it does not appear a satisfactory means of avoiding them. Blistered and crumpled leaves is known to be the result of chill, by continued cold weather; pinching will not give warmth, but expose the parts remaining more fully to the influence of cold, and jeopardise the fruit by its being more fully exposed, the leaves being its natural protection from adverse influences. Early pinching must also limit instead of promote root action, and the growth and the tender fruit be for a time arrested, if indeed it does not cause the crop to be thrown off or become cracked or otherwise deformed.

Though too early pinching be bad, late summer pruning is equally deprecable, for the allowing of long vigorous shoots to be made appropriating the sap, shading the spurs and fruit,

and thereby depriving them of light and air, is a robbery of the fruitfulness in the present as well as for future seasons. The spurs receive very ill-support, and the fruit less, for the parts—i.e., the leaves feeding them—are small from being under the leaves of the shoots, and they imperfectly perform their functions owing to the unfavourable conditions in which they are placed for doing so. Late summer pruning deferred until a late period is also undesirable from the parts requiring to be removed being large, suddenly exposing the fruit and leaves that were overhung by spray to bright and it may be hot sun, and they must have forced into them the sap that was needed for the spray removed, and as there is no part or only lesser foliage to appropriate it, it must create a stagnation at the roots, and cause to be put out speedily a quantity of spray that will be active late in the season. In fact, so complete is the check consequent upon a late and large removal of summer shoots, so paralysed is the root action, that the tree for a long time afterwards remains stationary, making no effort at fresh growth, and when it does it is weakly and late. In no wise can a large development of spray conduce to the size or quality of the crop, and in no wise can it by a large and sudden removal contribute thereto, but must act prejudicially upon the tree's healthfulness and its present and after fruitfulness.—G. ABBEY.

### NEW DISEASE OF POTATOES.

I AM sorry to have to state that it attacks English as well as the Yankee Potatoes. I have Walker's Regent, and especially Flourball (Sutton's), badly attacked. I had it very bad (1874) among Early Rose; about half died off as described in last week's Journal, just as the Potatoes began to form. I have examined several gardens since it was mentioned in the *Journal of Horticulture*, but chiefly do I find it in the American race. One garden nearly all Red-skin Flourball was badly affected.—E. J., Louth.

[More than one correspondent states that Sutton's Flourball is liable to this disease, and each asks, Is one of its parents an American variety?—EDS.]

I HAVE a row or two of Extra Early Vermont (I saved the seed myself last year), and find several roots attacked in the way you describe. None of the English varieties are attacked. My next-door neighbour has also some in the same condition, and the circumstances are precisely my own.—G. C., Croydon.

THE disease is very prevalent here in some cottage allotments known as Clarke's Gardens. In one of them I saw sixteen plants of American Late Rose, and they are all dead, also several plants of Extra Early Vermont; and the other varieties do not look so strong and vigorous as they were in former years, the leaves being very much curled.—W. B., Doncaster.

### CELERY CULTURE.

THERE are few plants which require more care in culture than does Celery. Having experienced some failures and a fair share of success, I can offer a few notes upon its culture. Leicester Red is the sort. Those who require early Celery must sow in heat about the middle of January, prick-out in heat, and harden-off in frames. I sow for the main crop the first week in March, place in a Cucumber house, thence to a vinery, then to a frame to harden for ten or twelve days. The plants are then pricked-out in 5 inches depth of soil (on ashes made hard), well mixed with Mushroom dung or droppings broken up. In this compost the plants are readily moved to the trenches with a good ball.

Stocky plants are also obtained by sowing in a warmer corner early in March, timely thinning, and planting in the trench when large enough. I have noticed Asters, Stocks, Helichrysums, and other plants do equally well sown out in the borders. With the Celery the next thing is the trench.

The soil here is 2 feet deep, and the greater part of it is annually trenched, turning-in to the bottom a foot thick of husky strawy manure from the stable, shrubby refuse, &c. After early Peas, a trench is thrown-out 5 feet wide, 1 foot deep, and plenty of dry short manure is worked in. The plants are placed 1 foot apart each way, water is freely supplied till re-established, when liquid manure is given. Soot is used to prevent fly, and salt to keep-off worms and to give solidity. Blood manure is an excellent stimulant for Celery. Earthing is commenced with the growth, using boards and

handling each plant separately, and keeping the heart up until growth ceases. It is then earthed-up close, and litter is put on in severe frost.

By the above method of culture Celery is obtained from 4 to 6 lbs. weight, and of the best quality. I have not found the earthing to check its growth, in fact if well supplied with liquid it will push the soil down from the sides, for its vitality cannot be overcome.—C. PRINCEP.

### LOBELIA PUMILA MAGNIFICA.

THE merits of this fine Lobelia cannot be too widely known. No one who saw the baskets in the exhibition tent at Regent's Park last week could fail to be struck with its great superiority. It is a robust form of pumila, and in habit perfect. The blooms are large, stout, and intensely blue—Lobelia blue—and the white eye is clear without being obtrusive. There is but little doubt that it is the finest Lobelia yet raised, and cannot fail to be invaluable both for pot culture and garden decoration. I direct attention to it because of its sterling worth, and because I am satisfied that it is one of the few plants that cannot disappoint. It is massively rich and charmingly chaste, decorative qualities which but few plants possess in combination. I advise all my gardening friends to possess this fine Lobelia.—J., Battersea.

### THE POTATO CURL.

THERE can now be no doubt that the new disease affecting the Potato is the recurrence of an old one known to some of us in our young days as "the Curl." This appeared towards the end of the last century, and continued with more or less virulence for the first five-and-twenty or thirty years of the present one. We have a perfect recollection of the dread with which it was regarded, and the disastrous results of its attacks. Volumes were written upon it by the most noted agriculturists and gardeners of the day, from Arthur Young and T. A. Knight downwards, and so serious was it that it engaged the attention of the most eminent scientific and practical men of the period. Its origin and its cure alike baffled the ingenuity of all who turned their attention to it till at last it died out, and for forty or more years it has not been heard of, till two years ago it made its appearance in the new seedling varieties of American Potatoes after they had been grown one season in this country.

This fact singularly corresponds with what we find in some of the early accounts of the disease. Arthur Young says that of Potatoes raised from seed one plant in thirty will be curled, and if propagated will retain this quality; and Dr. Anderson, a great authority of the period, states in the Bath papers that a large field planted with Potatoes the third year from seed had more than half the plants curled, while another field near it planted with sets which never, as far as he knew, were produced from seed, had scarcely one plant curled in the whole field.

There will no doubt be many conjectures as to the origin and cause of this disease, some being the old ones revived; and there will also be as many suggestions for a cure brought forward now as were formerly; but while others may be investigating and some dreaming as to these, our advice is, to be wise in time, and utterly to destroy every variety and every crop in which it has made its appearance; for our readers may rest assured it is a far more serious matter than some of our contemporaries who have treated on the subject seem to think of.

**ONION MAGGOT.**—It may now serve some of your numerous readers to inform them that soot prevents the Onion maggot if perseveringly used till the danger is passed. I believe the fly lays the eggs on the manure near the surface.—C. PRINCEP.

### NOTES AND GLEANINGS.

TO-DAY (THURSDAY) a SPECIAL GENERAL MEETING of the Royal Horticultural Society is to be held, and it is to be hoped that all who look forward to the Society being pulled out of its difficulties will attend and support any motion that may be brought forward to urge the completion of Lord Bury's resignation.

It is proposed to call a MEETING of the leading horticulturists on Wednesday, the 21st of July next, at six o'clock P.M., at the Criterion Hotel, Piccadilly, to consider the best means

of carrying out the pledge to hold an INTERNATIONAL HORTICULTURAL EXHIBITION during the year 1877.

### NOTES ON VILLA AND SUBURBAN GARDENING.

**FLOWER GARDEN AND SHRUBBERY.**—All sorts of bedding plants will have become fairly established by this time, and they must of necessity have considerable attention. The beds must be well hoed and cleaned, and the plants be induced to cover the space desired as soon as possible either by tying them out or neatly pegging them down. These are such as Verbenas of sorts, Nierembergias, Heliotropes, and other dwarf-growing or trailing plants. Then there are many plants which must be staked in time, as Hollyhocks, Dahlias, and Salvias. These are much reduced in beauty if allowed to go too long unsupported; for the wind once blowing them about prevents the plants being put into proper order again. As I have hinted once or twice before, both pegs and stakes should be prepared in times of leisure so that the work may now be done more expeditiously. Dahlias will be the better if a mulching of rotten manure be applied to the roots, so that when water is given the plants will receive extra benefit, and fine flowers is the general reward. Put stakes to Gladiolus, and secure the plants to them by one tie at present, and that must be rather low than otherwise, which allows of a freer growth and the bloom spike to come up without any obstruction.

Roses have been objects of great interest so far, and about here the flowers have been very fine. I hope when it is intended to increase the stock by budding that a selection of those best suited to the soil has been made, because budding should not be delayed any longer if the bark rises freely and the sap is flowing well from where the buds are taken. This should always be noted as important in the success of budding; and again the bud must be nicely and firmly fastened to the place in which it is inserted, and the stock itself be made secure against the wind. It is a practice in some localities to shorten the young shoots of the Briars by more than one-half at the time of budding, but I prefer leaving it the entire height till the bud has taken, because if the weather has been previously dry, or should set in dry immediately after budding, the shortening of the shoot causes a check to the flow of sap, and the bud suffers just at the time it most requires support.

Prick-out Brompton Stocks and Wallflowers into beds of good open soil, and encourage them to advance in growth. Violets that have been divided and planted out will likewise need encouragement, and they must not suffer from the want of water. The better crowns they form the more bloom will they afford when planted in the frame in autumn.

The shrubbery will require looking over—that is, all coarse growths that are rising up to the detriment of the lower growth and the shape of the plant, must be cut out. An unequal growth is particularly objectionable in a young hedge of almost any sort, and often ruins it. Yews and Laurel hedges that are intended to be ornamental and tidy may be now clipped, or rather out, for the knife is better for the purpose than the more ordinary shears; the knife hides the cuts, but the shears cuts the leaves in two, which is very objectionable.

Go over Rhododendrons that have done flowering, and pick off all the seed vessels, which not only makes the plants look neat, but allows the growth a free course, as it starts just at the point where the bloom rests. Look over the shrubbery generally, and see that no choice plant is being overgrown by its coarse-growing neighbour. Have all grass frequently cut and the edgings neatly kept, and walks rolled after rain, which by frequent use and a period of dry weather the surface of them is apt to work up in a rough state and become unpleasant to walk upon. Put in cuttings of Pinks, and layer Carnations and Picotees as soon as their growth is sufficiently advanced.—THOMAS RECORD.

### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

#### KITCHEN GARDEN.

THERE are two important crops that ought to be attended to this week—late Peas and late Cauliflowers. The gardeners in the north of England and in Scotland have the advantage over the southern growers in respect of these crops. In favourable localities with deep and moderately heavy or heavy soils decent crops may sometimes be produced, but in light and shallow soils it is labour in vain to grow these crops late in the autumn. Mildew and thrips are also very troublesome pests to deal with on the late Pea crops. It is now time to sow the Peas, and the late rains have made the ground in condition to receive the seeds. The ground ought also to have been prepared by being manured and deeply trenched. Were we sowing Peas this week the sorts would be Laxton's Alpha and Fyllbasket: the last-named is not a Marrow Pea but a hardy sort, and is wonderfully prolific. It may be necessary to water this crop after it is up, and they may be syringed with soot water.

Early London, Lanermand's, and Veitch's Autumn Giant are good sorts of Cauliflowers; the late rains afford an excellent opportunity to plant them out. It is sometimes necessary to plant out in dry hot weather, but it is seldom that the crops do so well. Plant Autumn Giant 2 feet, and the other two sorts from 18 to 20 inches apart. The Cauliflower even more than the Pea delights in a very deep rich soil. Cabbages may also be planted out now for autumn and early winter use. Coleworts and Atkins's Matchless are excellent varieties.

We have planted out the main crop of Celery, and those who have not yet done so should seize the present favourable opportunity. The usual method in this neighbourhood is to plant in single rows, and splendid Celery is produced where attention is given to watering; but where quantity is of more importance than quality it is better to plant in wide trenches, say 4 feet wide: this will admit of four rows 1 foot apart. The two outer rows would be 6 inches from the sides, and two rows in the middle a foot between each. Then as to planting in our garden, we dig down very near to the gravel, place in some rotten manure, and 2 or 3 inches of rich mould over this; the plants are then set out with a trowel.

One of the most useful winter crops with us is Brussels Sprouts, and we generally manage to obtain a tolerably good supply. We have found that they succeed very well if sown in deep drills, drawn as for Peas 2 feet apart. A little fine mould is sprinkled over the seeds, and as the plants increase in size the drills are filled in. The plants receive no check in this way, and they make sturdy plants, well furnished to the bottom. Of course they are thinned-out to the usual planting distance in the rows.

Sowings of Endive may be made this month. Fraser's Improved Broad-leaved is one of the best sorts for winter use, and a good stock of the Green Curled sown at the same time will come in earlier. Lettuce must also be sown to keep up a supply of this most wholesome salad. We still hold to Hick's Hardy White Cos as being the best for all purposes; but those who prefer the Cabbage variety cannot do better than sow seeds of "All the Year Round." Admirers of big Lettuce must sow the old Drumhead or Malta.

#### PINEAPPLES.

The large importations of foreign Pines make some difference in the time of ripening-off the fruit, especially for those establishments where the surplus stock of fruit is sent to market. It is no use at all to start early to obtain fruit in by the end of May or the beginning of June, for at that time the market is stocked with fine fruit from St. Michaels. One is not only struck by the fine appearance of the fruit, but they evidently have the best stock of Smooth-leaved Cayenne, and good British gardeners have been sent out to superintend the cultivation of the fruit. About the last week in June the supply ceases, and English-raised fruit may pay for growing all through the remaining summer months. The earliest Queens will now be nearly all out, and it will then be necessary to re-arrange the plants; the succession houses become crowded and the plants which are far advanced in growth may be arranged in the fruiting house, from which the old plants have been removed. There are very few houses now where the old deep tan pits are used, about 18 inches of plunging material (tan is the best), over the hot-water pipes will retain sufficient heat for the roots until it is time to start the plants, when the tan should be sifted if necessary, retaining the rough part only and adding fresh material, the whole to be well mixed-up together. When the Pines are started is the best time to add fresh tan, or it may also be added when the suckers are potted.

**Cucumbers.**—Those who are growing their plants in houses will not require any further information than may be obtained from previous notes under that heading. A few remarks may not be out of place on the culture in frames. It is not absolutely necessary to keep-up bottom heat in the beds, but the largest quantity and the finest Cucumbers we ever cut from frames were grown in this way. A space 1 foot wider and a foot longer than the frame was marked out, a lot of rough faggots were laid down on which to build the manure heap, and the faggots when pressed down by the weight of the manure still sustained the load 18 inches from the ground. The bed is 2 feet 6 inches high at the back, and 2 feet in front. The use of the faggots is to allow the heat from the linings that are applied after the heat declines to raise the temperature of the bed. Freshly-cut turf was laid over the bed with the grass side down, and the plants were put out on hills of good loam with a fourth part of rotted manure added. Cucumbers in frames ought to be watered overhead every afternoon in hot weather, and every alternate day if the days are dull and cold. Shut the frames up as soon as the water is applied. The best time is between 4 and 5 p.m. The plants must be looked over once a-week, and have all superfluous growths removed, for good Cucumbers will not be obtained if the leaves are crowded together.

#### PLANT STOVE AND ORCHID HOUSES.

A high temperature and moist atmosphere should now prevail in the stove, and also in the house devoted to East Indian Orchids.

Plants that require syringing should be thoroughly washed every day at least, even twice a day in hot weather, for thrips and red spider alike prey upon the young growths of many Orchids. Thrips do the most damage, and it is almost impossible to wash them off without great pains is bestowed upon the plants. Dendrobiums with short thick bulbs, such as *D. Farmeri*, *D. thrysiflorum*, *D. densiflorum*, &c., suffer most from thrips. They get down into the heart of the growths in the early stages of their development, and can only be dislodged by fumigating. Of course no thrips should be upon the plants, but they will be there even with careful management, and it is as well to know the best way to destroy them. Red spider attacks the older leaves, and can readily be washed off with soapy water, or by syringing the plants daily. We are now shifting a number of our Orchids into larger pots. Many of them are just making their growth, and at that time a large number of young rootlets are thrown out from the base of the young growth. If they are potted now, the plants have the season before them to make their growths. Some Cattleyas and *Laelias* succeed best in pots, others on blocks, and a few in baskets. When pots are used they are filled to quite three parts of their depth with clean potsherds; over the drainage we place clean live sphagnum, the potting material being turfy peat, sphagnum, and potsherds in equal proportions. A good block for Cattleyas is inch teak, cut according to the size of the plant. One of the best, perhaps it is the best, Cattleyas of recent introduction is *C. gignea*. We have a plant now in flower on a block with three flowers on a spike, and the plant in splendid health; another plant in a basket with peat, sphagnum, and potsherds, has not done nearly so well. The beautiful *C. superba* is also flowering well on blocks; it will do no good in a pot.

We also continue to pot any plants that require repotting as speedily as possible. When plants are being repotted the atmosphere should be moist, and the house also be kept close, and the roof shaded. When the plants have rooted into the fresh soil admit air more freely; good growths cannot be produced or matured in a confined atmosphere. If it is necessary to fumigate with tobacco at this season it must be done with great care; better to do it three or four times in succession than to give an overdose.

#### FLOWER GARDEN.

This department must now be kept scrupulously clean and neat. All bedding plants that required pegging-down have been attended to. Verbenas and other low-growing plants that have been put out to form rows in ribbon borders or edgings must be pegged to a uniform width; if the plants run into the next lines to them the effect is spoiled. Before pegging-down the plants the hoe ought to be run through amongst them. Any weeds that are left must be hand-picked, as the hoe cannot be worked amongst them afterwards. Put in pipings of Pinks; this work is always best done on a rainy day, they will then strike roots out of doors if put-in in a shady place where the sun acts upon them for an hour or two only each day.—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

- FROME (Roses).—July 8th. Mr. A. R. Bailly, Hon.-Sec.  
 KILBEY.—July 8th. Sec., Mr. C. E. Braesbridge.  
 RICHMOND.—July 8th. Mr. A. Chancellor, Hon.-Sec.  
 NOTTINGHAM.—Bose Show, &c., July 8th, 9th and 10th. Apply to Alfred Kirk, Municipal Office, Nottingham.  
 OXFORD (Roses).—July 9th. Mr. C. R. Ridley, Hon.-Sec.  
 GRANGE-OVER-SANDS.—July 9th. Mr. Thomas Ashley, Sec.  
 HEWORTH.—July 14th. Mr. B. H. Felton, Heworth, York, Hon.-Sec.  
 OUDLE.—July 14 h. Mr. Alfred King, Sec.  
 TONBRIDGE.—July 14th. Mr. W. Blair, Free Press Office, Hon.-Sec.  
 WIMBLEDON.—July 14th and 15th. Mr. P. Appleby, 5, Linden Cottage, Sunnyside, Wimbledon, Hon.-Sec.  
 DARLINGTON.—July 16th, at Southend. William Hodgson, Sec.  
 BRAMLEY.—July 19th and 20th. Mr. R. Fox, Sec.  
 BRECON.—July 22nd. Mr. W. J. Roberts, Sec.  
 HELENBURGH, N.B. (Rose Show).—July 23rd and 24th. Mr. W. Urs, Waddell, Sec.  
 OLEKHATON.—July 24th. Mr. S. H. Williamson Hon.-Sec.  
 BRIDOR.—July 27th. Mr. E. Hardeman, Hon.-Sec.  
 PRESTON.—July 29th and 30th. Mr. W. Troughton, 4, Church Street, Hon.-Sec.  
 SHERWORTH.—July 29th and 30th. Mr. H. W. Admitt, Hon.-Sec.  
 SOUTHAMPTON.—July 31st and August 2nd. Mr. C. S. Fuldge, 32, York Street, Lower Avenue, Sec.  
 BEDFORD (Cottagers).—August 3rd. Mr. W. M. Hughes, Sec.  
 WESTON-SUPER-MARE.—August 4th. Mr. W. B. Frampton, Sec.  
 LILKINGTON AND SHEPHELY.—August 4th and 5th. Mr. R. Blount, Sec.  
 NEWPORT (MONMOUTHSHIRE).—August 5th.  
 OTLEY.—August 7th. Mr. Jno. Lee, Hon.-Sec.  
 ROSENDALE-NEWCHURCH.—August 7th. Mr. M. J. Lonsdale, Newchurch, Sec.  
 CANTERBURY.—August 12th.  
 BURNOFFIELD.—August 14th. Mr. J. Hood, Sec.  
 DOVER.—August 18th  
 NORTHEACH.—August 18th. Mr. J. Walker, Hon.-Sec.  
 EAS-BOURNE.—In the Devonshire Park.—August 19th. H. A. E. Rumble, Esq., 26, Hyde Gardens, Sec.  
 GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.

HARTLEPOOL.—August 24th. Mr. Counsellor H. Magor, Hon.-Sec.  
NEWBERRY.—August 24th. Mr. H. Seymour, Hon.-Sec.  
LEAS OF TRAFLET (St. Petrus).—August 24th.

### TO CORRESPONDENTS.

"\* ALL correspondences should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (G.).—There was a new edition of the "Garden Manual" issued eighteen months ago, and is now on sale. We do not identify the Brier by your description, but the proper one for stocks is the Dog Rose, the prickles of which are hooked. (Young Gardener).—The book you mean is Mr. Thompson's "Practical Treatise on the Grape Vine," price 5s. Apply to Messrs. Blackwood, Palmerston Row.

FIR AND PINE (C. R.).—"Fir" is a popular name including all such coniferous trees as are included in the genera Pinus, Larix, Abies, Wellingtonia, and many others. "Pine" is also a popular name applied to many coniferous trees so differing that we cannot find space for the distinctions. There are the Ambroya Pine, Waymouth Pine, Moreton Bay Pine, Screw Pine, and many more.

VINES NOT FRUITING (*Vitis non Uvifera*).—We cannot understand the Black Hamburgh not fruiting from the lateral growths; we believe that you cut back too closely to the main stem at pruning time. Next year leave two or three eyes instead of one. In your district it will not be necessary to put slush on the borders to throw off the rains; place 3 or 4 inches of manure on the surface instead. This is presuming that yours is a late house; for early forcing it would be necessary to throw off the cold rains. The rest of your practice is correct.

CHINA ROSES CASTING THEIR BUDS (*E. C. Laming*).—We should attribute the casting of the buds to an imperfect supply of sap caused by the drought, which probably might have been overcome by copious waterings. The plants being only recently planted would not have obtained sufficient root-action to enable them to withstand drought.

TACONIA FIMBRISTIPULA (W. J. B.).—It is probably casting its buds from an insufficiency of moisture at the roots. We cannot otherwise account for it. Water thoroughly with weak liquid manure.

BRACCATHERA PROPAGATION (J. B.).—Take off the young stems close to whences they proceed after they have formed two or three leaves, and insert them in sand over sandy loam and peat in pots singly, and place in a gentle bottom heat and keep moist, but avoid making very wet. A temperature of about 10° to 15° warmer than that in which the plants are growing will answer for striking. They should not be inserted deeper than the base of the leaves. We have no experience of their flowering.

VINE LEAVES SHADING THE BUNCHES—STOPPING VINE SHOOTS (F. I.).—The leaves which shade the bunches of the Grapes should not be removed, they being the principal leaves, and the Vines being properly stopped you will not have too much shade. The main leaves must not at this or any stage be removed to permit of light to the fruit. Remove all the laterals from the shoots against the wall, except from the two lower leaves and the uppermost one to which the shoot was first stopped, and stop those at the first leaf, and as each succeeding growth therefrom to one leaf throughout the season. If by laterals you mean the side shoots upon wood of last year, they should be rubbed off to 12 to 15 inches apart, as we gave you instructions some time ago; but if you mean laterals on the cane of the present year's growth stop them at the first leaf, and to one leaf afterwards as succeeding growths are produced.

HEATING PIT FROM KITCHEN BOILER (H. W.).—It will answer to take the flow and return pipes from end to the boiler through the forcing pit, and also heating a cistern for baths, &c., upon a higher level, having a valve upon the flow and return pipe of the cistern, but you will need an air pipe upon the highest point of the pipes in the forcing pit, and this pipe must be taken higher than the bath cistern; in fact it would be well were its end taken to it so that any run or flow of water might be into it. Without a valve upon the return pipe of the cistern the heated water would rise through it. With this complication you will need to be careful, and not expedite a blow-up.

KALMIA LATIFOLIA NOT FLOWERING (E. N.).—Your plant only needs vigour. Give it some good turfy loam and cow dung in equal parts with your peat, and it will make better wood and flower freely. Add sand liberally if the peat be deficient of that substance.

PROVIDING BOTTOM HEAT (E. K.).—The best means is by a hot-water tank, and the next best means by hot-water pipes in a chamber, or the same surrounded by rubble. Tan is troublesome, but gives a long-continued heat—six months or more according to its extent. We could not tell you the expense of a "tan pit," and we do not recommend it for an amateur. The size would in a measure determine the cost, and if small the heat is not nearly so enduring. We strongly recommend hot water as best for an amateur or anyone not having ready access to fermenting materials.

WINTER NELLIS PEAR (C. R.).—It is probably a result of over-blossoming that your trees do not bring their fruit to maturity. We should advise you to scratch the surface with short manure, giving the tree against the south wall a thorough soaking before applying the manure, and water liberally in dry weather in summer. We would further advise thinning the blossoms, leaving the largest and most promising, and it is probable you will have as you say "truly one of the best of Pears."

PROPAGATING PANTHEMONS (E.).—Insert the cuttings in sand in September, and keep them moist and shaded for a time. They may be put in pots and be placed in a close cold frame, or have a bed prepared on the ground and a frame placed over it after the manner of striking bedding Calceolarias;

indeed they may be treated throughout the same as are Calceolarias. You can of course strike the cuttings now made from shoots which do not show flower spikes, but the plants would be large and require a proportionate amount of room in which to water them. We advise their being struck in September, when you will have fine plants for flowering the following summer.

MANICURE NINE AND AIMEE VIBERT (F. W.).—Let them have another season's growth; do not prune them too much, only thin-out weak branches, and most probably they will repay you another season. With good soil, liberal treatment of manure, and a moist climate, there will be naturally too great an inclination to wood growth.

SEEDLING STRAWBERRIES (W. B., Hants).—It is impossible to form any estimate of the seedlings. If thin let them remain, and transplant in the spring; but if likely to be overcrowded transplant a portion as soon as they are large enough to handle. They will not take up much ground, and will require very little attention, and it will be interesting to watch the results.

APHIDES ON APPLE TREES (W. H.).—The leaves are much infested, but no insects accompanied them. It appears to be the common aphid, and may be destroyed by a thorough syringing of softsoap water of a strength of 2 ozs. of soap to each gallon of water, in which is mixed a little tobacco water. If applied at a temperature of 100° it will kill all the insects it reaches, and will not injure the fruit.

MILDEW IN ROSES (H. B.).—This usually arises from defective root action. There must have been some cause other than its being grafted on the common one for your Black Oak to have died.

FAIRY RINGS (J. B., Bickley).—Fairy rings on lawns are caused by the spawn of a fungus, which keeps spreading outwards as it exhausts the soil upon which it has grown. To get rid of it water the ring with a solution of common salt, 2 ozs. to the gallon. It will cause the grass to become brown for a time, but it will soon grow again.

DYEING FLOWERS.—A Young Gardener wishes to know how Everlasting Flowers and Grasses are dyed. We shall be glad to receive information from any of our correspondents.

NAMES OF PLANTS (W. C.).—Every week we have to repeat our reply that we cannot name the varieties of florists' flowers, which Pelargoniums are, (W. B.).—*Lonitrea involucrata*. (Grasses).—*Eucalyptus europæica*, or *Spindle Tree*. (W. H. Oak).—It is *Lilium purpureum*, but this is only a variety of *L. Washingtonianum*. (Fried).—1, *Campocaulis glomerata*; 2, *Trollius europæicus*; 3, *Hemerocallis flava*; 4, *Lupinus polyphyllus* (?); 5, *Muscari monstrosum*; 6, *Hemerocallis flava*; 7, *Lupinus polyphyllus* (?); 8, *Orethys* (E. C.).—1, Composite, too young to name; 2, *Hemerocallis flava*; 3, *Orethys*; 4, *Lychnis coronaria*; 5, *Lychnis diurna flore-pleno*; 6, *Lavatera*; 7, *Lychnis coronaria*; 8, *Lychnis diurna flore-pleno*; 9, *Gonistis sagittalis*. (E. C.).—1, *Geranium sanguineum*; 2, *G. phœneum*; 3, *Gonistis sagittalis*. (M. G.).—1, *Listera ovata*; 2, No specimen received; 3, *Ophrys sphegodes*. Box all to pieces. (Somerset).—1, *Saxifraga umbrosa*; 2, *Corydalis lutea*; 3, *Oxycanthus floridus*; 4, *Veratrum virginicum*. (W. H.).—*Poa trivialis*. (C. R.).—*Dentaria crenata*. (E. B.).—We cannot make out the Grass, the spike having fallen to pieces. Send us a perfect specimen.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### PROLOGUE.

We shall not go round the world in any order, for we are erratic in our movements, and rush from poultry-yard to poultry show, up and down, all over the country, just as we have the inclination or the opportunity. The number of our chapters will consequently be uncertain, and the date of the epilogue promises to be a long way hence. The regularity of the numbers, too, must depend upon circumstances over which we have no control. Having thus much spoken for prologue we commence—

#### CHAPTER I.—WARMINSTER.

Warminster? Why ever Warminster? Peace-mainster we should have said, for everything with which we are here concerned seems to enjoy the utmost peace. Certainly there may be troubles ecclesiastical, but our Journal does not go in for that kind of warfare, and the Malays, the Poles, the Pigeons, the roses, "Angelina" and all, seemed in perfect and happy peace. "The Plovers," did some one say? Well, they found the peace too much for them, and betook themselves, we believe, to far-off golden climes, and idiots we call them for doing so, leaving that pretty rose garden with such aristocratic companions as the Malays must have been. But we must begin at the beginning.

When we reached the station we found Mr. Hinton waiting for us, for of course we came to Warminster to see him, and we soon find ourselves in his house. We had been there before, and now on this our second visit everyone seemed like an old friend. Directly we arrived we were met by two of Mr. Hinton's youngest daughters, little girls of five and six, such merry joyful little pets who really seemed glad to see one again. They came bounding in doll in arms, with Angelina between them (Angelina is the black cat you know), and to see the interest they took in the Pigeons and other live stock around made one feel and wish very strongly that all children might have opportunities of learning to love our interesting dumb animals. We saw the cups and the champion trophies of many a good show, and we saw on the centre table in the dining room the Oxford piece of plate. It was a small epergne of engraved glass and silver, and was full of the choicest roses, and on the table close by we saw our Journal. Everything on the premises betokened the same love for flowers and pets.

The days are long now, and the birds go to bed late, so Mr.

Hinton took us first for a drive, when, he said, we might at once see the country round and chat over favourite topics. And we did do both. We chatted on everything connected with the fancy, and on our hopes and fears for the coming season. There had been heavy showers in the morning which had freshened up everything, and bathed the trees in glistening gem-like drops. Mr. Hinton drove us through Longleat Park, and we may safely say we never enjoyed a drive so much. The rhododendrons were in full bloom, and every now and then a laburnum hung down its golden branches, and here and there were rare peeps of distant hills with a blue and purple mist upon them. We looked at them through dark frames of firs, and the effect was beautiful. But we must not linger too long on the way but return to the poultry.

Mr. Hinton has three establishments, we call them England and Wales, Ireland, and Scotland. We will speak of them separately. England is a rose garden with all the chicken runs round it, and Wales is tacked on at the side in the shape of a block of disused warehouses, where the Polands have state rooms in wet weather. Ireland is quite a little journey off from England. We had to cross a road and go down it some distance, and when we arrived there we found a long range of barns and sheds where the grown-up Malays live and some of the Polands. And then we went to Scotland, which is a large flower and kitchen garden where are two or three good runs, with a few more Malays in them, sheltered by overhanging trees and bushes. England certainly was rich in roses, but we could find no thistles in Scotland; instead of thistles we saw *Devoniensis* and *Madame Willermoz*, *Madame Victor Verdier* and *Céline Forestier*, and hosts more roses all with a wreath of bloom and buds.

But now for a more minute description of this England and its inhabitants. All the midland counties were planted with dwarf roses, and those round the coast were given up to the chickens. There were about 140 Malays and Polands in every stage of growth, all so healthy, all so bright and fresh-looking. Roses everywhere. Rose bushes planted in the runs made great masses of living shade where the Malay chickens rested and plumed their fast-purpling hackle feathers. Among them we saw two Whites. Mr. Hinton told us he had never bred one before, but these two came from the coloured birds, and very promising they were; one especially, a cockerel, looked as if he would do great things some day. Quite early some of the chickens were, and looking as if they knew almost what they had to do, so well did they eat and appear to thrive. In one corner of England, somewhere about Land's End, was the Pigeon house, and it was so well arranged that the birds walked out on a platform among honeysuckles and rose bushes. We saw lovely White Fantails and Black Baldpates all in the merriest state of cooing and showing themselves off to perfection. We left England and passed to Wales. We envied those large rooms with their dusty floors. In one we saw the king, he is the wonderful old cock which was first at Birmingham. He has been the glory of many a show pen, and splendid he looked, though he was fast losing his thigh feathers. Here too was a room with the baskets and food, and rose boxes, and moss laid out to dry to show the blooms on. Passing from here we went upstairs and found a splendid pair of Silver Poland hens in beautiful feather, and a capital match, heroines of many an exhibition; and here too were more Black Baldpates and empty spare rooms, only waiting for visitors in the exhibition season.

We left Wales and went to Ireland, on our way passing a house where blooms of *Maréchal Niel* quite hid the birds. We are certain the roses on this house could be counted by almost hundreds. We never saw a tree of even this luxurious rose with such a mass of bloom before. As we said before, Ireland consists of a row of barns; they were divided off by moveable lath lattices, and were a picture of all that poultry houses should be, all clean and covered with road grit and dust, with a copious supply of clean water. We noticed, too, a capital feeding pan, a contrivance of Mr. Hinton's to keep his Polands' crests from being soiled. It was a pan covered over tightly with a piece of large-mesh wire netting, through which the birds could feed without soiling a feather of their topknots. In these pens we saw the cup Dorchester Silver Poland cock, and the bird which won first at Reading and elsewhere last year, and we saw many beautiful hens with them. There were prize Malay cocks and hens there too, all looking ready to go out again and bring in more grit to the poultry mill, but Mr. Hinton does not go in much for the summer shows.

In Scotland we found the pens mostly empty. They were having a rest that the grass might grow and be fresh for the chickens when the time comes for them to leave England and to work for their living. We saw, however, here the first Swindon cock, and he in solitary exile in a large run was comforting himself by plucking his feathers and preparing himself for a fresh encounter in a new suit of armour.

We had now inspected the runs, and we could only stop and congratulate the owner on his great successes. Mr. Hinton has no fields and lawns, and free range for his birds—nothing but enclosed runs, and those not very large. Every inch of space was

made the most of, and everything was beautifully kept; consequently success is Mr. Hinton's, and so it can be anyone's who takes trouble to utilise to the utmost the opportunities he has, for it is surprising on how small a space and in the face of how great difficulties exhibition chickens can be reared. When we arrived at the house our time was drawing to a close, and when we departed presently with a huge bouquet of Mr. Hinton's choicest roses we not only carried away the recollection of a very pleasant day, but the gratification of feeling we had spent it with one who was not only pleased to show us his birds and flowers, but also to see us and to welcome us to Warminster.—W.

### BROODY HENS.

"C." warms for information how "to limit the time of broodiness" in his hens. They are Buff Cochins, Light Brahmas, and White Dorkings, but are continually broody, often for six weeks at a time; and as these birds, "C." tells us, are kept merely for laying purposes, these long fits of broodiness must be very detrimental to the egg-supply. These broody hens undergo all kinds of punishment for their natural propensities: "C." tells us he puts them in baskets, half drowns them, and ties them to the pailings, but all to no good. We do not wonder the first resort is fruitless, for we always use baskets to sit our own hens in, and no doubt these broody birds think they are placed in baskets for the same purpose. The cold-water bath is cruel and quite useless. We never heard of a hen being tied to a pailing for being broody, it is indeed making a martyr of her. Nevertheless, it seems to supply the cock with recreation, for "C." goes on to tell us "The cock vigorously resents the tying-up of the hens, and will sometimes try for half an hour to unpeck the knot, occasionally succeeding and triumphantly announcing that fact." On one occasion when the hen was for broodiness incarcerated in a hamper he was discovered to be busily engaged endeavouring to force a china egg underneath the hamper which he had obtained from a nest in the extreme corner for her to sit upon.

We are half afraid to recommend any treatment for these broody hens, for we fear the cock will be up to the emergency and outdo us; still we will give our own method. Before a hen becomes broody she always for three or four days gives forth a little incipient cluck, a grunt of imaginary pleasure perhaps. When we hear this, if we do not want the hen to sit we immediately move her into a fresh yard, where with fresh companions and fresh places to explore she generally loses the inclination. If, however, this does not answer, as sometimes happens, we move her into a run where there is no possible place for her to nest—where, in fact, there is nothing but the bare yard, and we find this speedily cures the most obstinate Cochins hen, and in three or four days they may again be restored to their former run. Of course where hens are bred for exhibition or for breeding exhibition chickens, it is most important that they should be allowed to sit once in the season to give the whole system a rest.—W.

### DRIFFIELD SHOW OF POULTRY, &c.

The annual Show was held at Driffield on June 30th in a meadow just on the borders of the town. The pens were very nicely arranged on two sides of the field, and were supplied by Messrs. Turner. Unfortunately the day was very wet, except for about two hours between eleven and one o'clock, when the birds were judged without having suffered much from the rain. All was well managed, and the best made of the matter under the circumstances; but the take at the gates suffered materially from the inclemency of the weather. Canvas was stretched over the top of the pens, and this served to some extent to protect the birds from the wet. The entries were very considerably in advance of those of any previous year, and the quality was good all through.

*Dorkings* were a good class, but many birds were out of feather. Whites were first. *Spanish* poor, except the winners. In *Cochins* were some good birds, but they were generally poor; as also the *Brahmas*. *Hamburghs* were very good; in *Spangels* first were Silver, and second Gold; and in *Pennils*, first were Gold, and second Silver; the single cocks being first Gold-spangled, and second Black. In *Game* the first in each class was very good, but the rest poor. *Game Bantams* good, the first Black Red, and second Duckwing. Blacks very good; and in single cocks the first was a handsome Duckwing, and second Black. Farm-yard crosses are generally such as we seldom find at any other show, and this was no exception. In the Selling class the first was a good pen of Malays, and second *Spanish*. *Turkeys* were a grand lot; and *Geese* only two pens of White, the first of rare quality. In chickens of this year the first were capital Dark Dorkings, and second *Game*; almost all coming in for a notice.

*Pheasants* were a splendid lot, there being scarcely any but that were well worthy of notice. *Carriers* were mostly young, but very good; the first, a Dun hen, was quickly claimed at £3 3s. *Pouters* were a capital lot, the first a very large Black cock; second one of the most stylish White hens we have ever seen;



and extra second a very large White cock. In *Jacobins* the winners were Reds, the first a hen, and second a cock; the first very small and neat. *Fantails* were all noticed, the first White, and second Blue. In *Tumblers* an Almond cock and hen were placed first and second, both grand in head qualities and well marked. *Nuns* were a good lot and well shown, and all Blacks. *Turbits* were a good class, the first Red, and second Blue. In *Dragons* a capital Yellow was first, and a Grizzle second. *Antwerps* were not good as compared with the rest of the classes; the first was, however, a nice Medium-faced Blue Chequer, and the second a Short-faced Blue with pearl eyes. In the Variety class the first was a Blue foreign Owl of great beauty, but rather dull in the eye; second a Black Barb; and third a Trumpeter, the class being good and many noticed. In the Selling class a White Pouter was first, and a Red Barb second. Very few pens were empty, with the exception of Mr. Harvey's, whose birds did not arrive in either poultry and Pigeons.

RABBITS were a good entry, and there was a capital tent provided for their protection. Lops were first; a Fawn doe was standing first, the measurement being 21½ by 4½; second a Tortoiseshell buck, rather small in the eye, 21 by 4½; and third a Tortoiseshell buck, 21½ by 4½. Himalayans were a very good class, the prizes being won by one exhibitor; the first with a young Rabbit, and second and third very large does. Pen 341 seemed a little worn with the journey. Silver-Greys very good, and placed as at several recent shows. Dutch a capital class, the first Blue and perfect; second Black, as also the third. In the Variety class first and third were Belgian Hare, and second an Angora.

#### Point cup for poultry won by C. Young.

**DORKINGS**—1, W. Morritt, Goolle. 2, Simpson & Dodds, Bedale. *Ac.* H. Pickles, Barb, Leeds. 3, H. Howarth, Barnby, Rochdale; W. Morritt. *c.* G. Pounder, Kirbymoorside; W. Leason, Driffield.

**SPANISH**—1, E. Newbitt, Epworth. 2, W. G. Waters, Elham, Brigg. *Ac.* T. P. Carver, Boroughbridge. *c.* G. Pounder.

**COCHINS**—1, Blakey & Blanchard, Driffield. 2, W. Santon, Driffield. *Ac.* T. E. Heavyside, Pannal, Harrogate. *Ac.* T. Peelson, Pickering; H. Gibson, Driffield; C. Young, Driffield. *c.* T. Dobson, Kirbymoorside.

**BRAHMAS**—1, T. P. Carver. 2, Miss Jacques, Basky Abbey, Richmond, York. *Ac.* J. Karnshaw, Botham, *c.* T. Dodson; W. G. Waters.

**HAMBURGERS**—*Gold or Silver-spangled*—1, H. Pickles. 2, J. Robinson, Garstang. *Ac.* T. P. Carver. *Ac.* C. Young. *Gold or Silver-pencilled*—1, T. P. Carver. 2, H. Pickles. *Ac.* C. Young. *Ac.* W. Harcliff, Hessle, Hull; J. Robinson. *c.* R. Smith, Norton. *Any variety*—*Cock*—1, H. Pickles. 2, T. P. Carver. *Ac.* J. Robinson; C. Young.

**GAME**—*Black-breasted or other Reds*—1, Webster & Adams, Beverley. 2, G. Carter, Bedale. *c.* T. Hope, Nantwich; W. G. Waters. *Any other variety*—1, J. & H. H. Staveley. 2, Webster & Adams. *Ac.* C. Young. *Any variety*—*Cock*—1, R. Smith. 2, J. A. & H. H. Staveley. *c.* C. Young.

**BANTAMS**—*Game*—1, W. Adams. 2, E. Newbitt, *Ac.* H. Butler, Bradford; C. Young. *c.* W. G. Waters. *Any other variety*—1, Milner & Bolnand, Keighley. 2, W. G. Waters. *Ac.* N. Naylor, Driffield; R. A. Boiesier, Penhurst, Kent. *Ac.* T. P. Carver. *c.* C. Young; T. P. Carver; M. Carter. *Any variety*—*Cock*—1, E. Newbitt. 2, C. Young. *Ac.* G. Bell, Morpeth. *Ac.* H. Butler. *c.* W. Adams, Ipswich.

**FAVORITE CROSS**—1, C. Young. 2, J. Ireland, Frodingham. *Ac.* C. Young; J. Ireland. 2, T. Akam, Driffield. *c.* W. F. Grewer, Driffield; G. Pounder.

**SELLING CLASS**—1, Lady D. Yeoman, Woodlands, Whitby. 2, Mrs. Maynard, Driffield. *Ac.* G. Brumby, Cottingham; T. P. Carver; C. Young. *c.* G. Pounder; W. G. Pardon, Driffield.

**TURKEYS**—1, B. A. Kirk, Gwendale, Ripon. 2, Miss Jordan, Eastburn. *Ac.* R. Smith; T. P. Carver.

**GENES**—1 and 2, C. Young.

**DUCKS**—*Aylesbury*—1, T. P. Carver. 2, C. Young. *Any other variety*—1, C. Young. 2, T. P. Carver.

**ANY VARIETY**—*Chickens*—1, J. H. Howarth. 2, J. A. & H. H. Staveley. *Ac.* G. Carter, Bedale; Mrs. W. Santon, Driffield. *Ac.* Mrs. Beckett, Watton Abbey; T. P. Carver. *c.* D. White, Driffield; Mrs. H. Naylor, Driffield; F. G. Gibson, Middleton, Teesdale; C. Young.

**EXTRA**—1 and 2, C. Young. *Ac.* Lady D. Yeoman. *Ac.* Master T. & P. Carter, Garton; J. Robinson; Mrs. Beal. *c.* Miss Jordan; Mrs. Adamson; G. Atkin, Woodmansay, Beverley.

#### PIGEONS.

**CARRIERS**—1, H. A. Ayrton, Saltburn. 2, F. Hedgeon, Driffield. *Ac.* H. Crosby, Sala, Cheshire; T. S. Stephenson, Beverley. *Ac.* R. J. Smith, Yarm-on-Tees; B. Hudson, Driffield; W. Moore; F. Hodgson; J. Blanchard, Driffield. *c.* A. McKenzie, Liverpool; W. Moore.

**POUTERS**—1, E. A. Thornton, Hull. 2, A. Spencer, Driffield. *Extra* 2, W. Desmar, Driffield. *Ac.* A. Spencer. *Ac.* W. Desmar; A. Roberts; J. Blanchard. *c.* J. Murray, Ouseburn; W. J. Warhurst.

**JACOBS**—1, 2, and 3, *Ac.* J. Blanchard. *Ac.* D. Maynard; A. Marshall, Driffield; T. S. Stephenson.

**FANTAILS**—1, J. F. Loversidge, Newark. 2, W. J. Warhurst. *Ac.* J. Walker, Newark; W. J. Warhurst. *Ac.* J. Walker; T. Peelson; T. S. Stephenson; F. Loversidge.

**TUMBLERS**—1 and 2, Webster & H. Adams. *Ac.* J. Blanchard. *Ac.* T. Peelson.

**NUNS**—1 and 2, T. S. Stephenson. *Ac.* F. Joy, Walmgate, York; J. Blanchard. *Ac.* J. E. Hughes, Hales Vicarage; R. J. Smith, Yarm; J. Young, Bishop Auckland; A. Leason; W. J. Warhurst.

**TURBOTS**—1 and 2, T. S. Stephenson. *Ac.* D. Maynard, Driffield; C. P. Lythe, Cottingham; E. A. Thornton; Miss Maynard, Driffield; J. Blanchard; W. J. Warhurst. *c.* J. Blanchard; B. Hudson, Driffield; W. Moore, South Walmgate; E. A. Thornton.

**DRAGONS**—1, B. Woods. 2, A. McKenzie. *Ac.* H. Crosby. *Ac.* C. A. Pearson, Liverpool. *Ac.* J. Payne, Beverley; Miss Maynard. *c.* Miss Maynard; W. Hyde, Welham, Malton; R. Wood.

**ANTWERPS**—1, W. Laycock, Driffield. 2, G. A. Thornton. *Ac.* G. Blakey, Driffield; J. Young. *c.* J. Leason; K. J. Smith; T. Pierson; B. Hudson; G. Blakey.

**ANY OTHER VARIETY**—1, T. S. Stephenson. 2, C. Woot, Hull. *Ac.* R. J. Smith; H. Crosby; J. C. Adams, Rochdale. *Ac.* J. Young; B. Hudson; J. W. Stanfield, Halifax; E. A. Thornton. *c.* W. G. Warhurst; Rev. J. G. Hughes; A. McKenzie; J. Payne; C. P. Lythe, Cottingham; J. Murray, Newcastle-on-Tyne.

**SPECIAL SELLING CLASS**—1, A. Spencer. 2, C. Woot. 3, J. Blanchard. *Ac.* J. Murray, Ouseburn. *Ac.* H. A. Ayrton, Saltburn; J. Young; H. Crosby; J. C. Adams, Rochdale; B. Hudson; G. Leason. *c.* W. Moore; Miss Maynard.

#### RABBITS.

**LOPS**—1, T. & E. J. Fell, Blackburn. 2, J. Murray. 3, W. H. Young, Driffield. *Ac.* A. Hudson, Hull.

**HIMALAYAN**—1, 2, and 3, J. D. Eames, Driffield. *Ac.* S. Buckley, Rochdale; H. C. Gilbert, Rugby. *c.* G. Cross, Rochdale; A. Spencer, Driffield; G. D. Raylor, Driffield.

**SILVER-GREY**—1, 2, and 3, *Ac.* A. Hodgson. 3, B. Greaves, Grimsby. *Ac.* W. Adams, Ipswich.

**DUTCH**—1, W. Donkin, Driffield. 2, F. Ostler, Driffield. 3, B. Greaves. *Ac.* A. Hudson; F. Ostler; S. H. Leech, Preston. *Ac.* E. Maynard; B. Topham, Bainton; S. H. Leech. *c.* J. Kershaw, Ashton.

**ANY OTHER VARIETY**—1 and 2, B. Greaves. 3, S. Buckley. *Ac.* W. Poole, Darlington; A. Hudson.

JUDGE.—Mr. E. Hutton.

#### RIPON SHOW OF POULTRY, &c.

THE thirteenth annual meeting of the Ripon Agricultural Society was held on the 80th ult. Although not professing to take charge of the poultry, &c., yet the management and attention (especially as regards food and water) ranks in the first class, the consequence being that though the prizes are small the entries are good, but we believe we are warranted in saying that a better list will be offered next year. The pens were those of the Northallerton Society, of wood with loose wire fronts, and being placed under the trees with the backs to the sun, the birds were well protected from the scorching heat.

*Game* were poor, except the winners; the first Brown and second Black Red. *Spanish*, only one pen put in appearance. *Dorkings* good, and all of the Dark variety. *Light Brahmas* poor, but Dark a fair lot; the first a handsome pen. *Houdans* only three pens, and these fair in all points but comb. *Orpingtons* very good. In *Cochins* the first cock was a grand one, as also the second-prize hen, the rest being only moderate, except pen 355 (Blacks), which were pretty good for that colour. In *Gold-spangled Hamburgs* first were good and second moderate, these remarks applying to *Silvers* also. In both *Gold* and *Silver-pencils* the winners were very good, the rest only of moderate quality. Two classes for *Sebright Bantams* produced only three pens, the first in *Gold* being chickens. If we except the first *Black Reds* in *Game* there was nothing of note; but the *Blacks* in the following class were good, the hens especially. *Turkeys* large, and in splendid trim. *Geese* large, but bad in colour. *Ducks* pretty good; the first in variety *Black*, and second *Call Ducks*. *Guinea Fowls* were very good, but Mr. Young's pens were empty. In the Selling class the first were *Dark Brahmas* and second *Spanish*.

**PIGEONS** were more uniform in quality than poultry, not one class but contained some good birds. In *Carriers* the first were *Duns* and second *Blacks*. *Almond Tumblers* were very good in all respects, and every pen noticed. In *Tumblers* any other the first were *Yellow Mottles*, very good in head properties and colour; the second common self-coloured *Reds*, very sound and even. *Pouters* poor, except the first *Blues*. *Antwerps* were very good, but two pairs were disqualified as cocks in place of cock and hen. *Jacobins* good; the first *Yellows* and second *Reds*. *Fantails* were very good, the first being very well shown. *Trumpeters* only moderate, but *Barbs* good, the first *Black* and second *Duns*. *Turbits* were but a weedy lot, in which there was great room for improvement; but *Nuns* were really good. *Dragoons* were a fair lot, the winners being as near perfect as can generally be found when shown in pairs; the first *Reds* and second *Blues*. A neat pair of *Red Magpies* were the recipients of first, and *Yellow* of second honours, a grand pair of *Blacks* losing through dirt alone. In *Swallows* first were *Reds* and second *Blacks*. In the Variety class a pair of capital *Blue Foreign Owls* secured first honours, capital *Ips* Pigeons of the plain-backed kind being second. In the Selling class the first were *Black Carriers* and second *Dun Barbs*.

The youth of this neighbourhood seem to have a curious idea of what a Rabbit is, the class producing both Rabbit, Guinea Pigs, and Albino Rats, all very pretty and good in their own way, and consequently noticed, though the prizes as a matter of course went to Rabbits; the first to an Angora, and second to a Blue-and-white Lop.

**GAME**—1, W. Bearpark, Ainderby Steeple. 2, J. Robshaw, Whitley, York. *c.* J. Ianson, Howe, Thirsk; T. H. Foden, Givendale Grange.

**SPANISH**—1, T. P. Carver, Langthorpe.

**DORKINGS**—1, J. Robshaw. 2, Simpson & Dodds, Bedale. *Ac.* T. P. Carver; J. Dalton, Stenigford Park.

**BANTAM FOWLS**—*Light*—1, G. F. Umpleby, Boroughbridge. 2, J. Smith, Jun. Ripon. *Dark*—1, E. Williams & Son, Sharow, Ripon. 2, T. P. Carver.

**HAMBURGERS**—*Golden-spangled*—1, T. P. Carver. 2, D. Sanderson, Richmond. *Ac.* G. Mangies, Givendale, Ripon (3).

**HOUDANS**—1 and 2, H. Grant, Bradford. *Ac.* Col. Cathcart, Ripon.

**CORNE-CORNE**—1, H. Grant, Bradford.

**POLANDS**—1, O. Walker, Boroughbridge. 2, W. Bearpark. *Ac.* W. Bearpark; C. Walker.

**COCHIN-CHINA**—1, Lowley & England, Boroughbridge. 2, G. F. Umpleby, Boroughbridge. *Ac.* W. Smith, Ripon. *c.* T. Webster, Ripon.

**HAMBURGERS**—*Golden-spangled*—1, T. P. Carver. 2, D. Sanderson, Richmond. *Ac.* A. Sherwin, Carthorpe. *Silver-spangled*—1, Wells & Sherwin, Ripon. 2, W. Bearpark. *c.* J. Robshaw.

**HAMBURGERS**—*Golden-pencilled*—1, T. P. Carver. 2, J. Wetherill, Northallerton. *Ac.* and *Ac.* T. & G. Kildon, Thirsk. *c.* Holdsworth & Horner, Harrogate. *Silver-pencilled*—1, W. Bearpark. 2, E. Williams & Son.

**BANTAMS**—*Golden-faced*—1 and 2, W. Richardson. *Silver-faced*—1, T. P. Carver.

**GAME BANTAMS**—1 and 2, Wells & Sherwin. 3, Holdsworth & Horner.

**BANTAMS**—*Black, White, or any other variety*—1, Wells & Sherwin. 2, T. P. Carver. *Ac.* W. Bearpark.

**TURKEYS**—1, A. Kirk, Givendale, Ripon. 2, G. Mangies. *Ac.* J. T. Remton, Littlethorpe.

**GEANES**—1, J. Nicholson, Littlethorpe. 2, J. T. Remton. *Ac.* G. Mangies.

**Ducks**—*Aylesbury*.—1, T. P. Carver, 2, Col. Cathcart, Ripon. *Bacon*.—1, T. P. Carver, 2, G. Mangles. *Any other breed or a cross*.—1, G. Sadler, 2, Col. Cathcart.

**GUINEA FOWLS**.—1, J. T. Remton, 2, A. Bland, Ripon. *Any other variety*.—1, E. Horner, 2, Wells & Sherwin.

**SELLING CLASS**.—1, T. B. Mason, Fountains. 2 and *any other variety*.—1, J. S. Harwood, 2, H. Gesset, Bradford; Holdsworth & Horner, 3, J. Cooper, Thirsk; T. S. Mason.

## PIGEONS.

**CARRIERS**.—1, E. Horner, Harwood. 2, G. F. Umpleby, Boreoughbridge. *Ac.* Benson & Milner, Birethwith; G. Sadler, 3, W. Boddy, Ripon.

**TUMBLERS**.—*Almond*.—1 and *any other variety*.—1, E. Horner, 2, T. Horman, jun., Ripon. *Ac.* Wells & Sherwin; T. Collinson. *c.* E. Bland. *Any variety*.—1, E. Horner, 2, T. Collinson. *c.* T. Horman, jun., Ripon; Wells & Sherwin.

**POUTERS**.—1, E. Horner, 2, T. Collinson.

**ANTWERPS**.—1, Wells & Sherwin. 2 and *any other variety*.—1, E. Horner, 2, Jacobins. *Ac.* G. Sadler, Wells & Sherwin.

**FANTAILS**.—1, J. Wetherill, Northallerton. 2 and *any other variety*.—1, E. Horner, 2, Wells & Sherwin.

**OWLS**.—*English*.—1, E. Horner, 2, G. Sadler. *Ac.* T. Horman, jun., Trumpeters. 1, E. Horner, 2, Wells & Sherwin. *Ac.* J. Wetherill, Northallerton. *c.* G. F. Umpleby.

**BARBS**.—1 and *any other variety*.—1, E. Horner, 2, T. Collinson.

**TURBITS**.—1 and *any other variety*.—1, E. Horner, 2, Holdsworth & Horner.

**RUNNERS**.—1 and *any other variety*.—1, E. Horner, 2, Wells & Sherwin.

**DRAGONS**.—1, Wells & Sherwin, 2, C. A. Pearson, Liverpool. *Ac.* C. A. Pearson; E. Horner. *c.* G. Brown, Ripon.

**MAGPIES**.—1 and *any other variety*.—1, E. Horner, 2, J. Wetherill.

**SWALLOWS**.—1 and *any other variety*.—1, E. Horner, 2, Wells & Sherwin.

**ANY NEW OR DISTINCT VARIETY**.—1, E. Horner, 2, Wells & Sherwin. *Ac.* Wells & Sherwin; G. F. Umpleby. *c.* R. T. Brown, Ripon.

**SELLING CLASS**.—1, T. Horman, jun., 2, Wells & Sherwin. *Ac.* E. Horner (2). *c.* J. Grimes, Pateley Bridge; Wells & Sherwin.

**EXTRA STOCK**.—1 and 2, Holdsworth & Horner (Sultans and Japanese).

**RABBITS**.—*Ac.*—1, S. E. Phillips, Ripon (Angora Rabbit). 2, J. H. Calverley, Ripon (Nabbit). *Ac.* J. W. Robinson, Ripon (Guinea Pig); T. Blackburn, Stanmergate, Ripon (White Rabbit); J. W. Cook, Ripon (Guinea Pig); J. Simpson, Stanmergate, Ripon (Rabbit); W. Broadwith, Rainton, Thirsk (White Angora Rabbit); F. H. Hodson, Ripon (White Rat).

**JUDGES**.—Mr. E. Hutton.

## DARWEN POULTRY, &amp;c., SHOW.

The first Show that has been held for some years came off at Over Darwen on July 3rd under most gloomy and disheartening circumstances, the rain falling in torrents most of the day, in fact without the least cessation up to two o'clock in the afternoon, turning the ground into a perfect bog; but every possible precaution was taken to prevent the birds being wet before the judging commenced, with only partial success.

The entries in POULTRY were poor, and as a rule the quality not good if we except a few pens—viz., the Pile Game shown by Mr. Young, the Hamburgs in all classes, the Geese, and Ducks.

Pigeons were, however, a much larger entry, and the quality good. In Carriers a Dun cock of great size, young, and of grand properties was first; second a capital Dun hen, three very good Blacks being very highly commended. *Dragoons*, Blue and Silver, were not so good as we often find them in Lancashire, but the next class was grand; a most wonderful Red was placed first, and a Grizzle second, Yellows coming in for the other notices. Short-faced Antwerps were good, Silver Duns winning, but the Long-faces a poor lot. The winners in Short-faced Tumblers were both Almonds, but there were some good Blue Balts. In Long-faced Tumblers Black Balts won the prizes. English Owls were very good; a Blue first and Silver second, both cocks. Jacobins good; the winners Red. In Turbids the first was a handsome Blue; the second of that colour losing only through size. In Barbs a Red hen of high merit in head properties was first, a good Black cock rather bad on one eye being second. A Black Foreign Owl won first in the Variety class, the second being a Nun, and all the others were noticed, the class being very good. In the Selling class a pair of Yellow Dragons won first and Red Jacobins second, both pairs very cheap. Some likely birds were shown in the Flying class, all the prizes being won by the same exhibitor, and we were informed that these were well-known long-distance birds, the first being a Grizzle, and known locally as a "Tippler" cock, and second a Blue-chequered Antwerp. A class was provided for young birds in which the first was a Silver Owl, second a Blue Carrier, and third a Black Trumpeter, Mr. Copeman showing a very good Long-faced Silver Dun Antwerp; but strange to say two exhibitors who ought to have known better sent old Barbs to compete in this class.

RABBITS were not numerous, but the quality good. In Lops were three, first Black-and-white and second Tortoiseshell. Angoras were good, and three entries also; but in Himalayans were ten entries, but all poor except the winners Silver-Grey one doe, and a fair Rabbit. The Variety class had six, the first a Patagonian and second Black Dutch, but we preferred Mr. Irving's Silver Cream to either of these.

**GAME**.—1, O. A. Young, Driffield.

**BANTAMS**.—*Game*.—1, E. Hargreaves, Accrington. 2, Birethwith & Whittaker, Barmington. *Any colour except Game*.—1, T. Green, Crawshawbooth. 2, T. Cooper, Barm.

**DORKINGS**.—1, J. H. Howarth, Borethwith, Rochdale. 2, J. Robinson, Garstang.

**DOUBLED-ORPINGTONS**.—1, T. Aspin, Church. 2, A. Bamford, Middleton.

**BRAMBLING**.—1, C. Holt, Rochdale. 2, J. Ainsworth, Darwen.

**SPANIERS**.—Black. O. A. Young.

**REARERS**.—*Golden-pencilled*.—1 and 2, G. & J. Duckworth, Church. *Silver-pencilled*.—1 and 2, J. Robinson. *Golden-pencilled*.—1 and 2, G. & J. Duckworth. *Silver-pencilled*.—1 and 2, J. Robinson. *Black*.—1, J. Robinson. 2, W. Wilson, Manchester.

**FRANCOIS**.—1, G. Anderson, Accrington.

**SELLING CLASS**.—1, R. Riding, Ewood, Blackburn. 2, T. Aspin.

**TURKISH**.—1, J. Holker, Ewidge, Blackburn. 2, R. T. Knowles, Darwen.

**ORPINGTONS**.—1, O. A. Young.

**Ducks**—*Aylesbury*.—1, C. Holt. *Bacon*.—1, C. Holt. 2, J. Holker. *Any other variety*.—1, O. A. Young.

**GUINEA FOWLS**.—2, T. T. Greenwood, Darwen.

## PIGEONS.

**CARRIERS**.—1, J. Chadwick, Bolton. 2, J. Stanley, Blackburn. *Ac.* H. Yardley, Birmingham; R. Scholes, Darwen; J. Stanley. *Ac.* J. Chadwick; J. S. Harwood, Blackburn.

**DRAGONS**.—*Blue or Silver*.—1, E. Woods, Mansfield, Notts. 2, H. Yardley, *Ac.* G. Cailow, Daisyfield, Blackburn. *Ac.* J. Stanley; T. Charney, Blackburn. *c.* R. Woods; E. White, Manchester. *Any other variety*.—1, J. S. Harwood, 2, T. Charney. *Ac.* E. Woods. *Ac.* R. Woods; J. Stanley. *c.* J. Kirk, Blackburn.

**ANTWERPS**.—*Short-faced*.—1, W. Harrison, Burnley. 2, R. Brierley, Bury. *Ac.* R. White; J. Stanley. *c.* J. Cowley, Chester; Grundy & Lees, Middleton. *Long-faced*.—1, Grundy & Lees. 2, T. Charney.

**TUMBLERS**.—*Short-faced*.—1, E. Yardley, 2, S. Lawson, Preston. *Ac.* W. Harrison. *Ac.* T. Charney. *Long-faced*.—1, G. Haydock, Darwen.

**OWLS**.—*English*.—1 and *any other variety*.—1, J. W. Stanfield, Halifax. *Ac.* J. W. Stanfield; J. Richmond, Oswaldtwistle; R. White; J. Chadwick. *c.* W. Harrison; J. Chadwick.

**JACOBS**.—1 and 2, J. Richmond. *Ac.* S. Lawson.

**TURBIDS**.—1, S. Lawson. 2, J. Richmond. *Ac.* W. Harrison. *c.* H. Yardley; J. Taylor, Rochdale.

**BARBS**.—1, H. Yardley, 2 and *any other variety*.—1, J. Stanley. *Ac.* S. Lawson.

**ANY OTHER VARIETY**.—1, J. C. Adams, Rochdale. 2 and *c.* E. Heath, Blackburn. *Ac.* T. Charney. *Ac.* H. Yardley; F. Kirkham, Darwen; J. Richmond, Borethwith.

**SELLING CLASS**.—1, R. White, 2, W. Markland, Deane, Bolton. *Ac.* S. Lawson. *Ac.* G. Cailow; J. Richmond.

**FOR FLYING PURPOSES**.—1 and 2, G. Haydock. *Ac.* G. Haydock; E. T. Knowles; J. Kirk; Grundy & Lees.

**YOUNG BIRDS**.—1, J. W. Stanfield. 2, R. Scholes. 3, J. F. Loveridge, Newark. *Ac.* G. Cailow; J. Stanley; T. Charney. *Ac.* C. F. Copeman, Solihull, Warwick. *c.* T. Helme, Darwen.

## RABBITS.

**SPANISH**.—1 and 2, J. Irving, Blackburn. *Ac.* M. S. Greenway, Darwen; J. Irving.

**ANGORA**.—1, S. Buckley, Henley, Rochdale. 2, J. W. Herring, Burnley. *Ac.* M. S. Greenway.

**HIMALAYAN**.—1, R. Hopkinson, Fishpool, Bury. 2, W. Hey, Rochdale. *Ac.* S. Buckley.

**SILVER-GREY**.—1, J. Irving.

**ANY OTHER VARIETY**.—1 and 2, J. Irving. 2, G. G. Mason, Fieldhouse, Rochdale.

**JUDGES**.—*Poultry*: Mr. W. C. Brierley, Middleton; Mr. J. Douglas, Manchester. *Pigeons*: Mr. G. E. Hutton, Pudsey, Leeds. *Rabbits*: Mr. W. C. Brierley, Mr. J. Douglas, and Mr. G. E. Hutton.

## BEE PROSPECTS, 1875.

The honey harvest for the year can now be fairly estimated in all places which do not depend upon the produce of heather, and curiosity is on the tip of expectation as to the probable display at the coming show at the Crystal Palace. I have come to the conclusion that our country here is singularly unfavourable to bees; whether it be owing to the climate, or our exposure to winds, or liability to drought, or from some other cause. For the last three weeks or more, in spite of thundery weather and some fine days, my bees have been doing almost nothing. May and early June swarms have not yet filled their hives with comb, although they were very large and have had every chance. In other hives the honey gathered in May has perceptibly diminished, and yet white clover superabounds in all directions, and bean fields are still in blossom, not to speak of quantities of buttercups and other wild flowers. My hives, too, are in fine condition—full of bees—choking up both stocks and supers.

We shall be anxious to learn from other parts of the country a report of proceedings, and request our friends to send us in their reports. It would be very interesting if to the reports were appended a description of the country round, the nature of the crops, whether woods abounded, and what flowering trees prevailed, also any peculiarities of climate or of atmosphere.

My own country is a wide plain, almost entirely consisting of pasture land, with numerous orchards around the houses. There is very little arable land, and we are sparsely wooded. May was fine and warm; June cold and windy.—B. & W.

## SUPERING.

YOUR correspondent, "F. J." like many other young apiarists, fancies that by supering his hives annually, and taking the honey from the top hives, and keeping the supers as stocks, bees could be managed profitably, and with the least trouble. He says, "If I were to work the hives on the nadiring system would not I be able in any good season to take off the top hives full of honey, and keep the nadirs for stocks, and the following year put nadirs under them and do likewise? But before putting on nadirs I should drive swarms out of them to increase my stock. By this way of working I need never have a stock hive older than sixteen months, the top and bottom hives to be made of straw 16 inches by 10 inches. I want to work the bees for profit, and fancy this way would pay best with the least trouble, but would be much obliged for your opinion."

"This way" has been tried by many apiarists, who find it very unsatisfactory in seasons favourable for honey-gathering. In seasons very unfavourable, the nadiring system of manage-



ment is equal to any other; but in such unfavourable seasons the nadirs are not kept for stocks. As soon as all the bees withdraw themselves from the nadirs, they (the nadirs) are removed, and the top hives placed on the boards. But even in favourable seasons for honey "F. J." would find that swarms taken from stocks would render enlargement by nadirs quite unnecessary for two months after swarming. The swarms would require more room before the mother hives, and nadirs may be profitably used with them when both honey and stocks are aimed at from swarms of the same season. Some apiarists put their first swarms into small hives with a view to obtain supers filled on them, and we are sure that "F. J." would realise more profit from his bees by swarming, and when necessary nadiring the first swarms.

We have recently said in answer to another correspondent that early swarms in good seasons do more work and rise to greater weights than non-swarmers, and also that nadirs used with non-swarmers have very often too much drone comb in them for keeping. It should also be borne in mind that nadiring does not invariably prevent bees from swarming. We have had hives with nadirs under them that sent off one and two swarms each. The loss of these swarms made us resolve never again to nadir a hive that has not swarmed. A little experience will enable our friend to feel his way to the best and most profitable mode of managing his bees. Meanwhile we advise him to increase the number of his hives by swarming till his set number of stands be covered.—A. PATTISON.

### NON-SWARMING HIVES.

In a former communication which appeared in this Journal May 20th last, I described a sort of hive which I considered likely to prove of great use, especially in small apiaries where a few hives only are kept, and that solely with a view to honey. This hive I stated might be made "24 or 28 inches long, 12 inches wide, and 9 or 10 inches high, with sliding divisions capable of being removed in the spring and replaced in the autumn." I added that "if such hives were made with bar frames an exact adjustment of plunder and convenient supply of food and breedings combs could be made every autumn, when the contracting slides are replaced for the winter."

I return to the subject, as believing my hive to be deserving of attention and trial, as the principle of it is certainly sound. I said that "hives of this sort are yet to be constructed, as I am not aware of their ever having been tried." Something of the kind, however, was tried by me with success several years ago. It was described and illustrated in this Journal under the title of "The Tasmanian Hive," because I first adopted it in Tasmania twenty years ago. I have one actually in use this summer, which was taken possession of by a fine stray swarm on the 13th of May. Although it is 21 inches long inside measure, but only 8 inches high and 9½ inches wide, it is quite full of comb and brood, and the bees are working well in a super. It has bars, but no frames, and moveable pieces of wood over the bars—as in the new bar-and-frame hives made and sold by Mr. Abbot—for convenience of easy access to parts of the combs without disturbing the rest. The hive I now recommend is a modification and improvement (as I think) of my old hive, which was inconvenient on account of its coming to a point at each end. My reason for not making more use of these hives is that they take up too much room in my bee houses and sheds; but if they were placed on single stands in the open air and properly protected they would be found to answer extremely well.

In managing hives of this sort there would be no need of using supers; for as soon as it was pretty well filled with honeycomb nothing would be easier than to remove one of the narrow boards covering three or four of the combs at either end, and with the aid of a whiff of smoke taking out a bar or two of honeycomb. A few turns, and the "slinger" would extract the honey if the combs were not such as could be eaten with the honey. The bars being then replaced, would soon be operated on anew by the bees, and would tend to divert attention from swarming, as well as to obviate the necessity of using supers. I venture to think that no hive would better suit those persons who wish to keep a few hives only with a view to the minimum of swarming and the maximum of honey, and for the benefit of such I now write.—B. & W.

### HOW TO HIVE A SWARM.

This is usually done in a very imperfect manner, and hence allow me to name the faults commonly observable:—1st, Doing useless things. Now, bees are apt to swarm on very hot days, and I am too indolent, or something else, to want to do more on a hot day than necessary. 2nd, Conforming to old stupid sayings and not to bee-instinct. When one studies the maxims of the past they find much good, but in bee-culture masses of error. I go for the true bee science. 3rd, Hence I use the simplest and best means. My hives are amid tall trees that

load me with apples, and hang with grape vines that give me half a ton of grapes. Hence I use a tall ladder, long sticks and poles, building in any tree a platform of boards to hive on. I shall now for convenience use the same tools or implements, even if I had no tall trees and long vines of grapes.

So let me lay down a few of my rules for hiving:—1st, Allow no one to stir or make the least noise while the bees are lighting. What! Not blow a horn, or ring a bell, or drum on a tin-pan, or throw dust or water? Not do anything? Yes, reader; just exactly do nothing but keep still. Now I have followed this rule in over eight hundred swarms I have hived for myself and others, and I tell you the broad fact that I never yet lost a single swarm in all that number—not one. Hence, if your noise or bell, tin-pans, horns, and other senseless confusion did good, you ought to beat me. But you cannot. I never lost a swarm yet, not one, even when they began to "go off," when I was obeyed; and if called to aid a neighbour, and he won't stop his noise and confusion, I "go off" because of his noise, just as bees are apt to do. Once a man a few miles out in the country came yelling like an Indian war-whoop, "Dr. Parker, come! Come stop this swarm of bees and I will give you five dollars." I tied my horse, stepped into the orchard, and said to wife and daughter, "Go to the house with those tin-pans; my boy, take the house bell in and stop your tin-horn;" and to the farmer, "Stop throwing dirt;" and to the hired man, "Take the pail of water to the house." All was quiet, but the dog running about. "Call him off there under that tree." So I quieted the confusion. Then I stood still; and the bees, soared no longer by the unusual noise, stopped and lit on the last apple tree, just as they would have done on the nearest tree to the hive they came out of had they been let alone.

So, I say, it is your tin-pans, noise, and running about that drives bees off to the woods, and as a wise bee-keeper you ought to know better. Now, let me tell you another fact. Bees will not go 200 feet from the hive they come out of if you let all be perfectly quiet and there is anything to light on. My bees, not one out of a hundred swarms go even 100 feet before they always light. So make it a rule to have no stirring, no noise, but all quiet until they are well lighted. Then bring out the hive from the cool cellar—where it has been put a day or two lest it get damp and mouldy—neat and clean, and as you of course have the strips of boards or sticks, boards, hiving cloth, &c., proceed to place your ladder and platform in the tree or on the ground, and other appliances, so that before the last bee has lit you are ready to hive them.

2nd, Never put a swarm directly into a hive. You ask, Why not? Because if you do the bees may not know it is a hive they are in, but only think they have had a slight accident or jar while yet on their lighting-limb or place; so they will leave the hive and go off to the woods, because they don't know they are hived. Hence you will place the hive so that when shaken off of the limb they lit on they will have to creep buzzing into the hive, and all go voluntarily up on the inside of it. Then they will not make the mistake of thinking they are not hived, but will know they have accepted a hive.

3rd, You need not be very quiet or slow about making the bees go in the hive. You minded the bees until they lit, now is the time to change and make them mind you. So a gentle rudeness in shaking off the limb is as good as saying, "Bees, you have left your lighting place." If they don't go in the hive readily take a dipper or flat piece of shingle or board, dip up a few, a pint or so, and shake them roughly close by the hive, as if to say, "There is the hive; why don't you see it?" Then brush rapidly but gently the rest towards the hive, as if to say, "Go in now, right away, no loitering; I tell you, my bees, go in." Those that crawl up the outside of the hive brush off and push back as far as you can away off from the hive, as if saying, "No going up the outside of the hive; go in or clear out." Thus you will learn yourself to be prompt, so gentle as not to be stung, and yet so rough as to make them obey. I have thus often made all the bees of a swarm, said to be too lazy to get into the hive, all go in in ten minutes, time and again. They will thus go in, even if they cannot all stay in the hive.

4th, As soon as the most of them are in, be ready to remove them to their permanent stand. Thus you avoid the coming-out of a second swarm, and the lighting and commingling of two swarms. Thus you get rid, too, of the few bees always uneasy and flying about the swarm, and who doubtless are the ones who find and lead the swarms off to some hollow tree or log in the woods. These bees are rarely over twenty to fifty in number, often not ten of them. Suppose the new hive is on a platform 20 feet from the ground, and all are in but a quart on the outside the hive, and fifty to two hundred flying in the air (there are really less than that usually). Now I raise the ends of the hiving cloth and tie it over the top of the hive closely. The quart of bees outside of the hive are fast between the hive and cloth, and not one can escape. The most of those flying about the hive will see the change as you take it down the ladder slowly, and go to the permanent stand. You set it down when and where as it is to be. Untie the cloth and drop the

ends. In an instant the bees out of the hive comprehend their situation, and fly about the hive and not to their lighting place. The same is true if a tin-pail, the light basket, or other receptacle has been used to bring the bees to the hive when placed on the ground, or other plan has been used to hive them. Now, immediately take out the hiving cloth from beneath the hive, and adjust the hive in its permanent shape or height, or other place and form it is to have.

Reader, the process I have described is often done by me, so that in twenty minutes from the emergence of the swarm the whole has been completed; and rarely does it take over thirty or forty minutes. And its advantages are that it gives the bees no time to be angry, saves your own time and care, and is such that you, as I, can do it alone, without the least assistance.

5th, Remember to shade the new hive from the sun until the hatched brood is in the new combs. Last summer friend said, "See here, doctor, these two hives are deserted with some combs in them." I said they were not shaded. He replied, "Yes, they are; see these two boards on the west side of them." There were two small boards, but quite out from under a peach tree they stood, with the unobstructed broiling sun from the west of a hot afternoon blazing on them. Shade effectually all new-hived swarms.—(*Germantown Telegraph*.)

[Let me here say that Dr. Parker cannot speak too strongly in pointing out the folly of making noises from horns and tin kettles to prevent bees from going off. Such noises do no good whatever, and may do some harm. Bees in a swarm follow the noise they themselves make; and all such sounds as come from bells, horns, and kettles tend to confuse and confound bees in swarming. The doctor is quite right in saying that swarms seldom go 200 feet from their old stand.]

We think he is wrong in saying that if bees are hived as soon as they alight on a tree they may not know that they are hived. They are not so stupid, and know well when they are comfortably housed and protected. Generally speaking, we let the bees of a swarm alight and cluster, and speedily shake them into a hive, and place the board over them for about half a minute; then turn the hive over in its natural position. All this is done in less than five minutes. A platform erected or a table placed near for the swarm to stand on is quite unnecessary in this country. If a swarm alights on a high branch of a tree the branch is out and let down, and hived with the swarm—that is, the hive is placed over the swarm. If the branch cannot be out, the swarm should be hived aloft, covered with a cloth, and let down.—A. P.]

### OUR LETTER BOX.

**AGE OF CHICKENS (Puzzled).**—The age of chickens exhibited depends much on the time of year when the exhibition is held. The age of chickens is not counted by the time that has elapsed since they were hatched, but they are, although hatched during the first week in January, chickens till the following New Year's-day. Thus, in November, in the class for "chickens of 1875," there may be two pens side by side, one hatched in June five months, and one hatched in January eleven months old; both equally eligible, but the oldest have all the advantage. In the old days of exhibiting a pen consisted of a cock and two hens. If you were to write to a dealer for a pen of fowls he would not send you less than three hens or pullets, perhaps four. The Bath and West of England Show is always held in June.

**DEFORMED COMB (H. B.).**—Your cock has that which is called a lop comb. It is a very serious defect if the bird is wanted for exhibition. It amounts almost to a disqualification. It is of no importance if the bird is used merely as a domestic fowl and food-provider. Sometimes a comb will fall over, especially in the spring and summer, from sheer development, the result of good keep and condition, and afterwards, when the cold weather sets in, it will shrink and shrivel, and resume its former shape. This is, however, only an exception. If you wish to breed perfect or exhibition birds you will not do so with him. A defect is generally hereditary. If, as you say, he has no other fault, you should find a ready sale for him; he is probably worth 12s. or 14s.

**DUCKS CHANGING COLOUR (Tarpel).**—Ducks of unquestioned purity during many generations, belonging to a black breed, never become suddenly white. Degeneracy from interbreeding shows itself by occasional white feathers, then white spots, at last by a pied plumage. "No Duck becomes suddenly white." If such a thing should occur it would happen only to one, it could not be the case with a number. On the other hand, if there be a bad drop in one of the parents, if at some time or other one of the progenitors formed a *malveillance* and consorted with a white Duck, the produce, although themselves perfectly black, may at times have a white descendant. It is a very rare event, and occurs only just often enough to show there is a Nemesis for those who dictate to or play with nature. We have always been grateful that we read the very useful paper in the *Spectator*, wherein the reputation for depth of character and great knowledge was gained for Sir Roger de Coverley by a certain shake of the head, and when referred to on a knotty case, saying, as Chairman of Quarter Sessions, "Gentlemen, there is much to be said on both sides of the question." We echo his opinion; but, we think all the Ducks of the same colour are very nearly related.

**SUPERING (Triceps).**—The alits between your nadir and top hive are too narrow for the loaded bees to pass through. Some of the pellets on their legs are knocked off while the bees are attempting to pass through the alits, and some of the bees wander about, going in and out with the pollen on their legs, not knowing what to do with it. Remove the zinc with the alits, and let the bees have a free open passage between hive and hive, and they will not be found leaving their hive with yellow balls on their thighs. When bees

have combs in which to deposit their burdens of pollen they will not carry them out of the hive or drop them on the board.

**CANARIES TURNED INTO A ROOM (A Constant Reader).**—The turning of the two-months-old birds into a room would sooner tend to increase their song than otherwise, and the birds would become stronger thereby, especially if supplied with a daily bath. The change would not prevent them again singing when caged off in the winter. But why cage them off in the winter? They would do as well in a room during winter as in summer. Keep the old birds in cages, for, unlike the young of this season, they will have to eat the whole of their feathers, wings and tails included, whereas the young birds will only throw off their body feathers. If old and young were kept together the appearance of the quills shooting forth about the wings and shoulders of the old birds might induce the young to draw blood. The habit once commenced would become troublesome, and the mutilation would very much disfigure the birds. Nothing but parting them would cure the mischief, but "prevention is better than cure." Where you have not space at your command to keep old and young separate you must keep the room in a state of semi-darkness, especially during the time the birds are moulting. This is best done by covering up the window with a cloth, leaving just sufficient light for the birds to find their food. It will not prevent them singing, for they will soon become used to the darkness.

**TARRAGON VINEGAR (Alicia).**—Take some tarragon; dry it in the sun, and then put it into a jar which fill with vinegar. Let it infuse for a fortnight, then draw it off, express all the liquid from the drug, and filter the whole; bottle it, cork tightly, and keep in a cool place.

### METEOROLOGICAL OBSERVATIONS,

CAMDEN SQUARE, LONDON.

Lat. 51, 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	Baromet. at 3 P.M. and Sea Level.	Hygrom- eter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.		In. In. In.	
		Dry.	Wet.			Max.	Min.	In sun.	On grass		
1875.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.		
June	29.969	64.0	67.9	S.W.	60.3	60.3	58.3	116.0	56.0	0.561	
July.	29.744	68.0	61.7	S.	60.0	60.0	59.8	84.9	56.0	0.185	
	29.745	68.2	56.0	S.	59.6	71.6	54.0	117.6	56.7	0.390	
	29.678	59.0	58.3	N.W.	59.0	71.2	56.0	117.0	57.7	0.941	
	29.564	56.5	56.0	N.	58.5	63.8	54.3	86.1	55.3	—	
	29.310	61.3	56.0	N.W.	58.3	73.6	45.5	121.6	41.3	—	
	29.311	56.3	60.3	N.W.	59.2	79.0	55.1	126.8	55.5	—	
Means	29.017	61.5	57.4		59.5	70.8	54.4	109.9	52.3	1.197	

### REMARKS.

30th.—Dull but fair till 2 P.M., from which time till 5.30 frequent showers (some of them heavy); fair afterwards.  
July 1st.—Showery all day; rather finer towards the evening; and a starry night.  
2nd.—Fine all day, but still not warm for the time of year.  
3rd.—Wet morning, and showery all day; thunder at 3.40 P.M. and for some time after; finer towards the evening.  
4th.—Wet early, but cleared up before 10 A.M., still rather dull till 5 P.M.; very fine the rest of the evening.  
5th.—Fine all day, but rather cloudy between 5 and 8.30 P.M.  
6th.—Another very fine day, though still cool; very clear at night.  
A cool summer week, with heavy rain in the earlier part.—G. J. SYMONS.

### COVENT GARDEN MARKET.—JULY 7.

We have now a very full supply, of soft fruit in particular, which in bulk is selling low. Hothouse Grapes and Pines have also experienced a considerable decline.

### FRUIT.

	s.	d.	s. d.		s.	d.	s. d.
Apples.....	1	0	0 to 0	Malberries.....	lb.	0	0 to 0
Apricots.....	box	1	8 4	Nectarines.....	dozen	6	0 15
Cherries.....	lb.	0	6 1	Oranges.....	dozen	9	0 14
Chestnuts.....	bushel	0	0 0	Peaches.....	dozen	3	0 18
Currants.....	1/2 bushel	2	0 0	Pears, kitchen.....	dozen	0	0 0
Black.....	do.	2	6 8	dessert.....	dozen	4	0 0
Figs.....	dozen	8	12 0	Pine Apples.....	lb.	6	0 10
Filberts.....	lb.	0	0 0	Pineapples.....	1/2 dozen	0	0 0
Cobs.....	lb.	0	0 0	Quinces.....	dozen	0	0 0
Gooseberries.....	quart	0	4 0	Raspberries.....	lb.	0	4 0
Grapes, hothouse.....	lb.	2	8 0	Strawberries.....	lb.	0	8 1
Lemons.....	1/2 100	8	12 0	Walnuts.....	bushel	8	0 12
Malons.....	each	2	0 5	ditto.....	1/2 100	1	0 1

### VEGETABLES.

	s.	d.	s. d.		s.	d.	s. d.
Artichokes.....	dozen	8	0 to 0	Leeks.....	bunch	0	4 to 0
Asparagus.....	1/2 100	4	0 0	Let-uce.....	dozen	6	0 0
French.....	bushel	0	0 0	Mushrooms.....	pottle	0	8 0
Beans, Kidney.....	1/2 100	2	0 0	Mustard & Cress.....	punnet	0	2 0
Broad.....	bushel	0	0 0	Onions.....	bushel	0	0 0
Beet, Red.....	dozen	3	0 0	pickling.....	quart	0	6 0
Broccoli.....	bushel	0	9 1	Parsley.....	doz. bunches	4	0 0
Brussels Sprouts.....	1/2 100	0	0 0	Parsnips.....	dozen	0	0 0
Cabbage.....	dozen	1	0 2	Peas.....	quart	1	0 2
Carrots.....	bunch	0	6 0	Potatoes.....	bushel	4	0 0
Capicums.....	1/2 100	0	0 0	Kidney.....	do.	4	0 0
Cauliflower.....	dozen	2	0 0	Raspberries.....	doz. bunches	1	0 0
Celery.....	bushel	2	0 0	Rhubarb.....	bushel	4	0 0
Coleworts.....	doz. bunches	2	0 4	Salsafy.....	bushel	1	6 0
Cucumbers.....	each	0	6 1	Scorzonera.....	bushel	1	0 0
pickling.....	dozen	0	0 0	Seakale.....	basket	0	0 0
Endive.....	dozen	2	0 0	Shallots.....	lb.	0	8 0
Fennel.....	bushel	0	0 0	Spinach.....	bushel	3	0 0
Garlic.....	lb.	0	6 0	Tomatoes.....	dozen	3	0 0
Herbs.....	bunch	0	0 0	Turnips.....	bunch	6	0 0
Horsedradish.....	bundle	0	4 0	Vegetable Marrows.....	doz.	2	0 4

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	JULY 15—21, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
15	Th	Wimbledon Show—second day.	76.6	56.7	66.7	3	44	9	48	37	45	30	45	12	5	196
16	F	Darlington Show.	76.0	56.1	66.0	3	4	8	8	35	7	9	1	13	5	197
17	S	Warrwickshire Horticultural Society—Coventry Show.	74.5	51.5	62.8	4	4	7	8	30	8	0	2	14	5	198
18	Sun	8 SUNDAY AFTER TRINITY.	74.7	50.3	62.5	6	4	6	8	52	8	6	3	15	5	199
19	M	Bramley Show opens.	73.3	49.9	61.1	7	4	5	8	15	9	22	4	16	5	200
20	Tu		73.3	50.3	61.7	8	4	4	8	33	9	42	5	17	6	201
21	W	Royal Horticultural Society—Zonal Pelargonium Show (Fruit and Floral Committee.	74.0	50.8	62.4	10	4	2	8	46	9	8	7	18	6	202

From observations taken near London during forty-three years, the average day temperature of the week is 74.7°; and its night temperature 50.4°.

## POROUS GARDEN POTS.



THIS matter is alluded to on page 416, vol. xxviii., by "G. S.," and subsequently by others, and the experience of cultivators is solicited. The subject is an important one, as flower pots hold a primary position amongst the gardener's means and appliances. I have given some attention to the subject both as to growing plants in porous and non-porous pots and tubs, and to a comparison of the condition of plants grown in washed and unwashed pots. My experience convinces me that neither thoroughly glazed nor extremely porous pots are the best for plants generally. I say generally, because particular plants will flourish in glazed pots, while others prosper better in those which are porous. To say that experience has settled the matter that plants thrive as well in glass or slate as in earthenware pots I think requires some qualification. In the first place, glass pots have not been in general use sufficient to prove their suitability, and I am not acquainted with a single cultivator who would entrust either a valuable Orchid or a prized Heath in a vessel of glass, because experience has proved that an epiphytal plant thrives best in a porous pot, and that in a glazed pot there is much danger that plants with hair-like roots, as Heaths, sustain injury by an excess of water which cannot evaporate. But why give an excess of moisture? There is the point.

It requires a very good judge to hit on the exact time that a pot should be soaked with water. Correct watering is the very essence of plant-growing. Soil and temperature avails but little if sound judgment is not exercised in applying water. Faulty watering will render inert the best soil; for if water is given in excess the soil is made sour, and if it is unduly limited its virtues remain insoluble, and the plant languishes. I once nearly lost a situation by watering a specimen *Erica* a few hours before the time that the plant really needed the soaking. That plant was in a slate pot. Had it been in an ordinary clay pot the danger would not have been so great, and the gardener, who was one of the best plant-growers of the day, always regarded slate pots as dangerous, not because the plants (Heaths) would not flourish in them, but because an accident of overwatering was ever liable to happen, and when it did occur the consequences were more serious than if a plant were in an earthenware pot. It may be stated without hesitation that for ten men who aspire to take the charge of plants, and who consider themselves proficient, not more than three of them are really competent in the matter of watering. All who have the responsibility of valuable plants know that this statement is correct, and that the greatest trouble a thorough plant-grower has to contend with is the want of knowledge or care on the part of his subordinates in the matter of plant-watering.

Plants which are growing in non-porous pots, and especially in peat soil, are more liable to injury by an overdose of water than if they were growing in earthenware

pots of, not extreme, but medium porosity, and it is more difficult to determine the precise time at which water should be applied to plants in pots of the kind first mentioned than in those of the last-named material. That conclusion is arrived at after many years' actual experience in plant-growing. On the other hand, coarse ill-burnt clay pots are not to be trusted to grow fine-rooted hard or softwood plants, for in these there is great danger of them receiving injury by the other extreme of sudden changes from excessive wet to extreme drought consequent on too great evaporation. Not many good plant-growers would prefer a pot of this nature any more than they would one having its pores absolutely closed.

For most plants, including fruit trees, pots made of smooth clay and well burnt are the safest and most satisfactory to use, as less skill and attention is necessary in escaping the ever-present liability of hasty watering on the one hand and tardy applications on the other. Pots which are excessively porous are suitable under certain circumstances and in certain seasons which under other conditions are quite inimical. *Cinerarias* and *Ferns*, for instance, will, if in a pit and towards the autumn months where they stand on a moist bottom and where the pots are never absolutely dry, grow much faster in porous than they will in glazed pots; but if these porous pots were exposed to the sun and air the *Cinerarias* would curl and the *Ferns* would wither. It is the nature of the plant and the position it must occupy that will best determine the nature of pots to use. Taking all things into account the great majority of cultivators will, and do, find that the pots which are the most safe and satisfactory are not soft and open clay pots or those which are quite impervious to air and water, but earthenware made of smooth well-tempered material and thoroughly-burnt pots, to apply a plain test, on which we may write the names of the plants with smoothness and comfort instead of those which grind the lead of the pencil after the manner of a rasp or grindstone.

Some plants, as *Musk*, *Myosotis*, *Spiræa japonica*, &c., will thrive admirably in smooth glazed pots, as large quantities of water do not injure them. So also will *Ferns*; but ordinary hard or softwooded plants do not thrive so well as in earthenware pots, to which their roots cling and become increasingly fleshy, vigorous, and absorbent by contact with the porous sides of the pots. Do not the roots of such plants derive support from the porosity of the pots admitting air to the roots? If in the pots is placed open material, such as crocks, the roots are more healthy than in the close soil; so are the surface roots of many plants—roots which protrude through the surface. Such roots by an absence of light and a sufficiency of moisture are invariably bristling with fleshy spongioles, which certainly derive considerable nourishment from the air. These spongioles are finer around the sides of a clay pot than they are when in contact with a smooth polished surface impervious to air, and this demonstrates the superiority of the earthenware pots.

Yet very porous pots are at times injurious, or permitted to be, by being placed in the full rays of the sun

in summer. Much injury is done by this exposure. The pots in which plants are growing should at all times be shaded when standing in the open air in the summer months, either by plunging, placing one pot within the other, or by other efficient means. The roots either of a plant or tree cannot but be injured if the sun has full play on the earthenware pot which contains them; but preferable to painting is shading. Painting may do no harm in the summer, but at some time and with some plants clean-washed pots are certainly preferable to those sealed against the admission of air.

With plants growing to be shifted on, pots are preferable to tubs; but with trees perfected, as Bays, Aloes, Palms, &c., to which it is inconvenient to add more root-room, and where the roots are extremely matted and all the water that can be given is necessary, then stout wooden tubs are advantageous; they do not, by their comparative non-conductibility, part with moisture and admit heat as do pots, and hence their adoption on the continental terraces. If these tubs are painted a light colour to repel the sun's rays, instead of a dark one to absorb them, they answer their purpose still better. But while plants generally flourish best in earthenware pots, those which are porous should not be exposed to the full sun—indeed very soft pots are not the safest to use, and should never be used, when new, without first being thoroughly soaked in water and then permitted to dry. This is a little matter of considerable importance, and should never be neglected.

Smooth clay pots washed clean inside and out, and dried before using, are the pots which I have found the most generally satisfactory in dealing with a mixed collection of plants, and in keeping them in the best condition during the different seasons of the year. That a plant may be seen occasionally to flourish in a dirty pot or a glazed pot is more due to the surrounding circumstances being, what may be termed, locally favourable than to any intrinsic merits of such pots. The practice, I venture to say, of general cultivators is overwhelmingly in favour of clean, well-finished earthenware pots as the best for plants generally, and there is little fear of them losing the position they have attained of being almost exclusively used by the best cultivators of plants.—*EX-EXHIBITOR.*

### CONCERNING ROSES.

THE first series of Roses here is now over. They began blooming June 7th in the open ground. The blooms have been abundant and magnificent. They are making new wood plentifully for the next series. A gentleman who visited the Crystal Palace Rose Show told my housekeeper in my absence that the Roses there were a joke to them. I cannot, therefore, think that I am so ignorant on the subject of Roses as some try to make out.

If the reader will refer to page 486 he will see that I did not recommend Madame C. Jéguenax as a fully expanded Rose for button-hole purposes. Of course, it would be too big for the purpose. My words were, "These should be in bud form, or only partially expanded." On this mistake Mr. Peach founds his merriment. Let us see the opinions of other rosarians who may be supposed to know something about it. I refer to three Roses to which Mr. Peach has objected, or called trash—namely, Abbé Bramet, Maxime de la Rocheferrie, and Baron Chaurand, three Roses of choice and excellent colour. Mr. W. Paul in his able work on Rose culture, page 87, names Abbé Bramet with other Roses of 1871, and adds, "These have already taken a place among our established favourites." Of Baron Chaurand in his catalogue he thus speaks, "Velvety scarlet, centre shaded with blackish purple, large—[It is not large here.—W. F. R.]—full, and of finely cupped form, foliage fine; one of the best dark Roses! The following is the opinion and description of Mr. Van Houtte of Maxime de la Rocheferrie:—"Beautiful, velvety, blackish purple, large and full. Splendid." If I have erred in respect of these three Roses I have erred in good company. We must, however, make an allowance for difference of tastes.

The following are good button-hole Roses in bud form before expansion, and they are beautiful—Mme. La Baronne de Rothschild, Mlle. Eugénie Verdier, and Solmaterre. Probably Bostan d'Or would be good for the purpose. I do not keep it. Now a word about Madame Lacharme. I have just bloomed six plants of it. It is very beautiful, but it soils in foul weather, is flimsy in its petals, and scentless. I recommend it highly for pots under glass. It casts an abundance of single blooms. Since Louise Magnan's time I think it is the best in the white line, being slightly tinted.

These are fine Roses—Marquise de Castellane, one of the finest of late years; Comtesse d'Oxford, and Etienne Levet. The last is scentless. The next two are, at any rate, successful garden Roses—Pierre Seletzski and Hortense Mignard. I have had a lot of successful blooms, not one bad one, of Firebrand. Von Moltke is very beautiful. The plant, however, of it is at present very weak. We cannot fully estimate Roses till they are on strong stocks. The form of François Michalon is excellent, but my three plants of it do not grow well here. Perhaps the winter injured them. St. George is about to bloom and looks hopeful. We want more dark colours. The crimson and maroon look well in foul weather, and at all times set off a rosery. We are sick of rose colours.

One word about cut-backs. I quite agree with what Mr. Peach and Mr. Camm have said on that point. Some of the Roses here that I have had for years reach 4 inches in diameter, and some are more than that. Mr. Prince gave me Paul Néron on his seedling Briar, its second year here. At 4 feet from the ground the bloom measured 5½ inches! I am not a great lover of very large Roses, but there is a coarse taste for and love of "whoppers." This is specially the case with garden commodities—Potatoes, Cabbages, Onions, Cucumbers, Melons, Carrots, and Parsnips! Most people's idea of a show Rose is, that it is a "whopper." Let us hope that a better taste may arise.

The most perfect Roses are the medium-sized varieties—viz., Duchesse de Caylus, Madame Rivers and Vidot, Océide de Chabillant, William Griffiths, Devonians, and Souvenir d'Elise Vardon. I wish the Rose-raisers would produce a Rose of the colour of the Austrian copper, or cross one of our yellow Roses with it.

I must now thank Mr. George Paul for three excellent Roses—Lord Clyde, Princess Mary of Cambridge, and the Duke of Edinburgh; and I must thank Mr. William Paul for the following excellent Roses—Lord Macaulay, Lady Suffield, and Firebrand, and trust that I shall find Queen of Waltham and Star of Waltham as fine as their seductive portraits.—*W. F. RADCLIFFE.*

### ROYAL HORTICULTURAL SOCIETY.

#### THE GREAT SHOW ON THE 21ST.

IT is with great pleasure that we are in a position to announce that, by way of showing their approval of the changes that have recently taken place in the Council of the Royal Horticultural Society, the exhibitors at the shows have combined to make *gratuitously* the Exhibition that is to be held at South Kensington on the 21st one of the finest the Society has ever held. Those who have already signified their intention of co-operating are Messrs. Veitch & Sons, Mr. B. S. Williams, Messrs. J. & C. Lee, Mr. Bull, Mr. Charles Turner, Mr. Standish, Messrs. Osborn & Son, Mr. Wills, Mr. Outbush, Mr. Laing, Messrs. Paul & Son, Mr. Parker, Mr. W. Paul, Mr. Ley, Mr. Moore, Mr. Wimsatt, Mr. Barr, Mr. Burley, Mr. Harrow, gardener to Mr. Beaumont; Mr. Hudson, gardener to Mr. Im Thurn; and we are told there are many others expected whose names have not been received.

In reference to this Mr. Turner writes—"Roses will remain good till the 21st, and I have no doubt you would have a good show not for competition. The bloom will be prolonged on account of the rains." It is to be hoped that this will be the case, for Roses would be a great acquisition, and they have scarcely been seen at South Kensington this year.

No more graceful compliment could be paid to the present Council, and nothing could more show that Horticulture is not dead, but that there is a power in it which only needs the opportunity to have it called forth. Let the Council only have the arrangements favourably completed with the Royal Commissioners, which is the only delay at present, and there is nothing between the Society and perfect success.

CEREUS GRANDIFLORUS.—I enclose you a photograph of one-half of the Night-blooming Cereus which I gave an account of on July 13th, 1871. It has just finished blooming this year. It has had 295 flowers out. It had 168 open the night we had it photographed, which I believe to be the greatest number of flowers that was ever seen on any plant of the

same kind in this country. If any of your correspondents know of one having more perhaps they will communicate the fact in the Journal.—R. MANTLAND, *The Gardens, Pendryffryn.*

## ROYAL HORTICULTURAL SOCIETY.

JULY 25TH.

A SPECIAL General Meeting of the Fellows of this Society was held last Thursday afternoon in the Council room, South Kensington, Viscount Bury in the chair. The Meeting was convened by the Council of the Society in accordance with the following requisition, which was signed by more than twelve Fellows:—"We, the undersigned Fellows of the Royal Horticultural Society, respectfully request the Council of the said Society to summon a General Meeting of the Fellows with as little delay as possible to consider the conduct of Lord Bury, Sir Coutts Lindsay, and Messrs. Bonamy Dobree and Burnley Hume in reference to the non-completion of their resignations, and other matters that it may be deemed necessary to introduce to the notice of the Meeting under the head of acts and doings of the above-mentioned gentlemen during and in connection with their membership of the Council, and also for the purpose of conferring with the Council as to the steps that should be taken to extricate the Society from the difficulties under which it is placed from the obstructive position assumed by Lord Bury, Sir Coutts Lindsay, and Messrs. Bonamy Dobree and Burnley Hume in the non-completion of their resignations."

The Meeting on Thursday was very largely attended. Amongst the members of Council present were Admiral Hornby, Dr. Denny, Dr. Hogg (Secretary), Mr. W. B. Kellock, Mr. B. Hume, Mr. Bonamy Dobree, Mr. Webb, Mr. Houghton, Mr. H. Little. Amongst the general body of the Fellows were Lord Alfred Churchill, Sir Alfred Slade, Bart., Mr. W. A. Lindsay, Dr. Masters, Mr. Chetwynd, Mr. Pownall, Mr. Shirley Hibbard, Mr. Bull, Mr. H. J. Veitch, Mr. Quilter, Mr. S. H. Godson, Mr. Godson, jun., Mr. Peter Barr, Mr. Liggins, Mr. Noble, Mr. Wills, Mr. Turner, Mr. Bragg, Mr. Deal, Mr. Murray, Mr. Guedalla, Capt. Mackenzie, Mr. Pinches, &c.

The CHAIRMAN said: The Assistant Secretary will read the notice calling the Meeting.

Mr. DAVENPORT, Assistant Secretary, then read the notice.

The CHAIRMAN.—Is it your pleasure that the minutes of the last meeting be taken as read?

Several FELLOWS.—Let us take them as read.

Mr. S. H. GODSON.—How can you take these minutes as read when this is a special Meeting? I object to their being taken as read, and I move that they be read [hear, hear].

Mr. PINCHES seconded the motion, which was carried.

The ASSISTANT SECRETARY was reading the minutes of last meeting when

Mr. BRAGG, of Birmingham, said he protested against the reading of the minutes, that being a special Meeting called for a special purpose [hear, hear].

The CHAIRMAN.—I am of opinion that the minutes ought not to be read, and I think we had better proceed to the business of the Meeting. This Meeting has been convened by the Secretary "to consider the conduct of Lord Bury, Sir Coutts Lindsay, and Messrs. Bonamy Dobree and Burnley Hume, in reference to the non-completion of their resignations, and other matters that it may be deemed necessary to introduce to the notice of the Meeting under the head of acts and doings of the above-named gentlemen." Well, I am sure we shall listen patiently, and I hope with profit, to the accusation which it appears is about to be brought against myself and my friends; and of course I will reserve to myself, and my friends will reserve to themselves, the right of making some reply if we fancy anything said against us in this room should be commented upon. At the outset I may say I have been informed that a letter of mine which appeared in the *Times* has given some pain to my former colleagues. Several members of the Council—[here there were cries of "question" and some interruption]. I was simply going to make an explanation which I thought would be acceptable to these gentlemen [hear, hear]. It seemed to me that it was the Council of which I was a member which had formulated the act of accusation, but I beg to say that explanations have been offered to me which have removed that impression from my mind. The Council did not promote this Meeting, they did not write the notice, and are no more responsible for it than I being obliged to call the Meeting in accordance with the requisition. I must say that when I saw the name of Dr. Hogg to it I thought the Council were responsible for it, but I do not assume their responsibility, and am therefore perfectly ready to accept the explanation that they were acting in their ministerial capacity. I should have been sorry if it was my own colleagues who called it, and I am glad it was not. Having listened to all the accusations that may be brought against us, I think a very few words will bring the whole matter straight before you.

Mr. J. B. PHARSON of Chilwell, near Nottingham.—I have come a distance of 120 miles to be present at this Meeting. That to some people may not be a matter of importance, but to a busi-

ness man like myself it is, I assure you, a matter of importance [hear, hear]. I have never seen anything to surprise me more than to witness your Lordship occupying the chair to-day. I thought you resigned your position as Chairman of the Council. You received a vote of thanks, and we of course thought you were gone [laughter and "no, no"].

A FELLOW.—I say to that "Certainly not" [hear, hear].

Mr. PHARSON.—I am only giving my own opinion. You had resigned, and others of the Council had resigned, and I beg leave to say if I am wrong I shall be glad to be corrected. The fact is, Lord Bury's carriage stops the way; and does Lord Bury think after publicly giving up his office that he is entitled to take that chair again? In any case the general impression in the country is that for some reason or other it was advisable that Lord Bury should vacate that chair, and that some other individual should take it. If Lord Bury thinks he is still Chairman after having given up his office of Chairman, I feel that is carrying matters rather too far.

Mr. S. H. GODSON.—Unless this gentleman concludes with a motion I object to him saying anything further on this subject [interruption].

Mr. BATEMAN.—I am sorry to anticipate the speech of that gentleman. I signed the requisition in no spirit of animosity to any honourable gentlemen, but with a view to put an end to what was likely to bring about an inevitable crisis [hear, hear]. I thought you were going to speak of the circumstances under which your resignations were brought about, and I thought you were about to explain the circumstances under which those resignations were not completed. I do not know what explanation you have to offer, but I know a long-looked-for crisis is coming on which, in the interests of the Royal Horticultural Society, ought to be prevented [cheers]. I am a very old Fellow of the Society, having joined it nearly fifty years ago when crisis No. 1 was brought on thirty years ago by great expenditure. It was freed from that crisis by my late lamented friend Dr. Lindley, and from that time the Society had for a period of twenty-five years uninterrupted success and prosperity. But old leaders of the Society fell off, and from competition and other causes they got into financial crisis No. 2. They got out of their difficulties then by the action of the late lamented Prince Consort, who was unfortunately taken away from them too soon, as no sooner had the nuptials been celebrated than the Prince was taken away from them. After him there arose a cruel king, who seized the position, kept them *in terrorem*, and made them utterly powerless. And with such skill—though not one of us was responsible for the position of the Society no more than the youngest Fellow now in the room—with so much skill, I say, were these things manipulated, that one concession after another was extorted from us. It was perfectly natural that under the circumstances the local Fellows should take alarm, and I trust that by this time they have become disenchanted with the idea that they had only to try in order to become masters of the situation. We know we are now in the agony of a great crisis, and the question is, What are we to do? I should like the past to be forgotten, and although I may not agree with the Council, still I give them credit for what they have done [hear, hear]. What is the state of our Society in regard to our connection with the Royal Commissioners? I am sure our Society has lost ground with the public and with horticulturists, and that with the Commissioners it has also lost ground. We all know and must feel that we have lost ground as to horticulture, and I do think the interests of horticulture have suffered most seriously, my lord, under your administration [loud cheers]. Nothing is more depressing than a walk through your gardens. You have nothing before you but the evidences of blighted hopes and neglected opportunities [hear and laughter]. We actually find weeds springing up in the gardens, and, of course, I need not speak of the destitution which distinguishes the shows of the Society. Well, now, how much easier it is to destroy than to create [hear, hear]. The Wednesday meetings were inaugurated at a great expenditure of time and trouble, and nothing now is so painful as to witness our Wednesday meetings when we compare them with our former Wednesday meetings [applause]. And under these circumstances I ask these gentlemen who are now come upon the Council, and those of the Council who remain upon it, to come forward and prevent this crisis. I beg to say it is our bounden duty to give to the Council now the confidence those retiring have forfeited [hear, hear].

The CHAIRMAN.—The Meeting seems to be under a great misapprehension, and that is that my three friends and myself do not intend to resign. That is, I must say, a very great mistake. There is my resignation, and there are the resignations of my three friends [loud cheers, amid which the noble lord handed the written resignations to the Hon. Secretary]. We are met here to-day to explain why we did not resign before [a laugh].

A FELLOW.—Well, then, as you say that, why did you not resign before? [cheers.]

The CHAIRMAN.—When you are done your talk I will tell you [cries of "oh" and some laughter].



A FELLOW.—I should like to ask if there is any resolution before the Meeting.

The CHAIRMAN.—There are before the Meeting the resignations of myself and my three colleagues [hear, hear].

A FELLOW.—I don't really see what is before the Meeting [interruption]. Several Fellows attempting to address the Chair].

Mr. GURDALLA.—The greatest calamity which can befall the Society is the resignation of you, my lord, and that of your colleagues [cries of "no" and uproar]. You can exercise great influence in dealing with Her Majesty's Commissioners, and your position must have an influence on the way in which the communications of the Council would be received [much interruption]. I directly tell you that if you do not keep these gentlemen in office your Society will be extinct in a very few years [loud cries of "oh" and considerable confusion]. I ask you, Are you aware of the letter of the 25th of May? Are you aware of the letter from Sir Henry Cole to Lord Granville, with respect to the grounds being devoted to building purposes in order to get something from the Government? ["oh, oh"]. Are you aware that was done to bolster-up the failure or the fallen fortunes of the International Exhibitions? [cries of "no," uproar, and interruption]. I beg leave to ask you, my lord, and your honourable colleagues, whether no means can be adopted to have a vote taken? because if there was you would have a large majority [loud uproar and hissing, which lasted a couple of minutes].

A FELLOW.—We come here, not to hear speeches, but to receive the resignations of Lord Bury and three other members of the Council [renewed uproar].

Mr. GURDALLA.—Then I, sir, or my lord [a laugh], as a very old Fellow of the Society, have come here to ask you to reconsider your determination to resign. I not only ask you to do that, but I also ask your honourable colleagues to do the same [interruption]. You have all performed your duties, and conducted the affairs of the Society with great ability [loud and prolonged hissing]. I appeal to you, my lord, as a man who has had much practical experience in public life to reconsider your determination as to your resignation, and to — [The rest of the sentence was lost in the noise resulting from an altercation in the body of the hall, which is explained as follows]. It appears that Mr. Liggins and Mr. Peter Barr of Covent Garden were sitting in close proximity, and during the course of Mr. Guedalla's observations a warm personal altercation between them took place, which, as far as could be heard, assumed the following shape:—

Mr. BARR.—You are a fool, sir, and know nothing about the Society.

Mr. LIGGINS (coming forward towards the platform).—This man calls me a fool! Now, my lord, I am not a fool [great laughter]. I appeal to you, my lord, to protect me against this man's violence. [Looking back], you impudent fellow to call me a fool! [interruption and uproar, during which Mr. Pinches got between and separated the disputants].

The CHAIRMAN.—There is really no question before the Meeting but the one—to consider the conduct of Lord Bury, Sir Coutts Lindsay, Mr. Bonamy Dobree, and Mr. Burnley Hume with respect to the non-completion of their resignations. These resignations are here, but they are not completed.

Lord ALFRED CHURCHILL.—When will they be?

The CHAIRMAN.—Those who called this Meeting have to say. I call upon Lord Alfred Churchill who interrupts me to justify this circular which has been issued. If he does so, and any gentleman has anything to add, I will reply. I place these resignations in the hands of the Assistant Secretary, but they are not yet completed.

Lord ALFRED CHURCHILL.—I quite admit that I signed the requisition referred to by the noble lord. The whole difficulty in which the Society is placed is one of pounds, shillings, and pence [hear, hear]. At present it is in debt some £5000 or £6000. I occupied a seat for a short period at that Council board, and I came there with the wish to help in making terms with Her Majesty's Commissioners. Afterwards there arose great annoyance in the minds of the South Kensington party, and they declined to pass the Report of the Society after terms which we considered beneficial had been made. We assumed that that was a vote of want of confidence, and we retired en masse. You then came into the Society, and you were not in it very long until you were made the catpaw of the party, and from that hour to this the Society has been gradually brought into difficulties, and you have failed to do anything with Her Majesty's Commissioners. I have also been told that when a certain letter from the Commissioners was read in this room your lordship's conduct was so violent that you had to retire [oh, oh]. I hope it is not true. I signed the requisition because I thought it was one which I should sign [hear, hear].

Mr. H. J. VARRON.—On the 4th of June you said you would retire, my lord. I thought it would be for the benefit of the Royal Horticultural Society that your lordship and the other members of Council referred to should retire. You say your

policy has failed and that you could not get the Society along. Well, it has been submitted that the Fellows were not willing to treat with the Commissioners; but, in any case, there can be no doubt we are losing a very great number of Fellows, and that we have alienated from the Society a very great number of exhibitors [hear, hear]. The Royal Horticultural Society has lost a very great deal through not having provincial shows. Something like £1800 or £2000 has been lost through not having provincial shows. Now, with respect to the four gentlemen whose resignations have been handed in, one of them said he should sooner lose his right hand before he would sign a check to pay the prize money to exhibitors. It was the Treasurer who said that, and while on this subject I may say they never had a better supporter of the Society than Mr. Wilkins [hear, hear], and, I do not think he is one who ought to have been spoken of as he has been [hear, hear]. I have heard, too, that the allowance made to Mr. Berkeley, who had worked hard in the interest of the Society, for travelling and other incidental expenses was withdrawn [no, no]. Well, I am glad it was not, for the services of Mr. Berkeley are most valuable. I congratulate Mr. Bonamy Dobree that his right hand is saved and the cheques for the prize money signed, and I have no doubt he has found it much easier to eat his own words than out his right hand off. I am sorry so much should have been said at a previous meeting about the arrangements made between gentlemen and their gardeners in reference to exhibitions. I, as a member of the firm of Messrs. J. Veitch & Sons, have supplied a very large number of gentlemen with gardeners, and in no instance have I known a gardener having less money because of receiving prize money; but I do know cases in which the more prize money a gardener gets the more salary he receives from his master. I do think this is a great Society which in the future ought to drop everything save the study and practice of horticulture. Let them all—horticulturists and South Kensingtonians—pull together to retrieve the fortunes of the Society [cheers].

Capt. MACKENZIE.—I think no one ought to be elected President of the Society who has not a perfect knowledge of horticulture [hear, hear]. I hope that will be borne in mind. With regard to the Royal Commissioners, I am sure they will not put themselves in any way in opposition to the Royal Horticultural Society. I think the gentlemen who signed the requisition ought to get some better man to do the business of the Society [hear, hear].

Mr. SHIRLEY HIBBERD.—I rise, my lord, to move —. [Here there was a good deal of interruption, and Mr. Hibberd sat down without proceeding with his motion.]

Mr. H. G. QUILTER.—You have placed your resignations on the table. You have stated your wish to resign. You have stated the reasons why you wish to do so, but you really have not resigned because you have not completed your resignations. You said as men of honour you would resign, but you deceived us upon that matter.

The CHAIRMAN.—Not at all, we did not.

Mr. QUILTER.—You stated that as men of honour you felt it your duty to resign, but, as men of honour, you have not done so [hear, hear]. I have watched the progress of this concern, and I agree with Lord Alfred Churchill that you have been made the catpaw of a certain party. You neglected the financial means by throwing overboard the Society's provincial shows. I feel it is high time we should do something to place the Society on a sound footing [hear, hear].

The CHAIRMAN.—I would ask the Meeting if the accusation is now completed? If it is, I shall be ready to answer it.

Mr. SHIRLEY HIBBERD.—I rise to move "That Viscount Bury, Sir Coutts Lindsay, Mr. Bonamy Dobree, and Mr. Burnley Hume be requested to complete their resignations" [cheers]. It is not a pleasant thing to have to move such a resolution. We have already many intelligent men on the Council, but I feel bound to remind you that the gentlemen named in my resolution from the moment of their accession to office have been loyally supported ["no," and hear]. I do not think it can be truly alleged that anything like party feeling has entered into the action of the Fellows [hear, hear] in getting up this requisition; but we took your words as the words of gentlemen when you said you would resign [cries of "hear" and "time"]. The gentlemen who have tendered their resignations have no sympathy with horticulture ["time" and "no"]. I take it they have none of it. We were told about the regulations which it is alleged exist between gardeners and their employers.

Mr. LIGGINS said this was not the question they had before them [hear, hear].

Mr. A. F. GODSON.—I will ask whether you, my lord, and those who have given in their resignations are now members of Council or not?

Mr. HIBBERD.—I beg to move the resolution I have read.

Mr. BRAGG (Birmingham).—I will second Mr. Shirley Hibberd's motion. I believe there is a great future for the Society.

A FELLOW.—I don't see it [laughter].

Mr. BRAGG.—I have no animus in the matter—all I have at

heart is the welfare of the Society, and I can only say that if the Council only inaugurates a certain state of things by which the Society could gain the co-operation of large towns like Birmingham, Manchester, Liverpool, and Derby, they will acquire for themselves the best wishes of the horticultural world [hear, hear]. I do hope, my lord, that when you and your colleagues have placed your resignations in the hands of the Council that you will remain in the Society. I believe that hundreds of Fellows in the midland counties will accede to the Society. I beg to second the resolution.

The CHAIRMAN, having stated that Sir Coutts Lindsay was in Scotland, said:—The Meeting will please grant me three words of explanation [hear, hear]. It is true that three of my colleagues and myself said we would resign, and we proposed to resign. At the end of the Meeting Sir Alfred Slade remarked—and I quote from a verbatim report of the Meeting published in the *Journal of Horticulture*—that, according to the 16th bye-law, no business except that for which the adjournment was made could take place. This was what occurred. [He read from the *Journal of Horticulture* of June the 10th of this year:—

"Sir Alfred Slade remarked that, according to the sixteenth bye-law, no business except that for which the adjournment was made could take place. Therefore the Meeting was incapable of accepting the resignation of the members of the Council or to appoint their successors. He regretted very much that there should be any reason for the resignation of the members of the Board who had tendered it.

"The Chairman said Sir Alfred Slade was right. Another Meeting would have to be called to deal with the resignations. That was strictly in accordance with the bye-law which he had quoted. The simple fact was they would have to call another Meeting."

Well, they did not think it right to resign except at a General Meeting. That General Meeting is now called, and our resignations go in. Why did I say our resignations ought not to be taken except at a General Meeting? Because half of the members shall be filled up by the Council and half by the General Meeting. We only announced our intention of resigning at the General Meeting, but when we got to the Council-room we found a list had been prepared in which the four vacancies were to be filled up by certain gentlemen irrefragable in themselves, but not returnable because we thought the whole thing ought to have been referred to a General Meeting. At the Council Meeting of the 7th we had the list, which we refused to vote upon because we felt that the matter should be brought before a General Meeting. When the list of Fellows was proposed I moved the following amendment:—"That although the names submitted are unexceptionable, it is desirable to submit the whole matter for the general discussion of the Society."

LORD ALFRED CHURCHILL.—It was perfectly competent for any twelve members to sign a requisition.

The CHAIRMAN.—No doubt, but I am afraid there was a certain apathy amongst the members of the Society. You cannot expect men to devote their whole attention to the affairs of this Society, and—

MR. W. A. LINDSEY.—Will you allow me to call your attention to the fact that—

The CHAIRMAN (emphatically).—No, do you sit down, sir. If you want to make a speech you can do so afterwards. Now, I will tell the Meeting why we would not resign to the Council. It is because we found it a clique composed of horticulturists [loud cries of "oh," and some uproar]. It may be possible that all sections in the Council will be filled-up by the horticultural section [cries of "hear" and "no"]. I am perfectly willing that every member of the Council shall be a horticulturist, but what we contend is that that shall not be done until the general body of the Fellows shall have carried that into effect. I do not believe that the South Kensingtonians will have confidence in such a Council [cries of "no" and "hear"]. Well, there is a difference of opinion on that point. I deprecate as much as anyone the difference of opinion arising in its extremest form, but in my opinion if some arrangement with the Royal Commissioners is not come to your Society will fall to pieces ["no, no"]. That is my opinion, and I do believe it is my duty to say so. I wash my hands out of the concern with the greatest possible satisfaction. I never attended a Meeting convened in response to a requisition couched in such terms [hear, hear]; and although I am willing to refer it to the clumsiness of those who drew it up, I may say if you get men to serve you on such terms you are extremely lucky [laughter and "oh"]. I see a great many good old friends amongst us, and I should be sorry to part with them except on the best of terms [cheers]. I hope all by-gones will be by-gones [hear, hear], but I do speak my mind when I say you had better take the concern into your own hands instead of having it governed as it now stands. I now place my resignation and that of Sir Coutts Lindsay in the hands of the Secretary in the best good humour, and I take leave of you in harmony and with best good wishes [cheers].

ADMIRAL HORNBY.—I came upon the Council knowing nobody in it, and finding no cliques in it. I have been an active horticulturist for many years; but I believe among the South Kensingtonians there are many good men who have nothing to do with the jealousies and heart-burnings which unhappily

existed, but who have been willing to place the Society on a sure footing without any party feeling whatever. I joined the Council, and it becomes my business to allude with great regret to the relations existing between the horticulturists and the Kensingtonians. It is fair to say what I have already said, that I have not found any feeling of clique on the Council, and I feel certain that members of Council did not say one word they did not firmly believe [hear, hear]. I have come here without any party feeling. I have come upon the Council without having any resolution in my mind, except that of doing the best I could for the Society [hear, hear]. In spite of all that has been said, I believe there is a bright future for the Society, and that we have no reason whatever to despair. I heard at the last Meeting words uttered as to the Royal Commissioners, and I don't know by what authority the word "shuffling" was used towards gentlemen admittedly high-minded. I feel perfectly assured of the good feeling of the Commissioners towards the Society, and I am sure they will meet us in a right and proper spirit [hear, hear]. Notwithstanding many things I have heard as to the condition of the Society, there is not the least reason why this Society should not do well and be really prosperous and well-doing. My only policy is a policy of consolidation. I would point out to the South Kensingtonians how necessary it is to keep these gardens for their own enjoyment, and to the horticulturists how necessary it is to keep these gardens for their own pleasure [hear, hear]. I cannot conceive why, if a wet sponge is rubbed over what is past, we could not resume a position honourable to ourselves and beneficial to the Royal Horticultural Society of England [applause].

MR. BONAMY DOBBER.—As to what Mr. Veitch said about the gardeners, I believe the system referred to is very much adopted. Mr. Wilkins wrote to me to say his gardener would sooner lose £1000 than lose his prizes. This gardener has received about £70 a year for the last four years in prizes, and when the Society was short of funds this very man took an action against us. Rather than that the Society should be placed in such a position, I signed a cheque for the amount claimed [hear, hear]. When I said I should resign it was to the Fellows generally I intended to resign, and not to a clique of the Council. With all respect for the South Kensingtonians, we ought not to be bound hand and foot to those gentlemen who had joined the Society for their own interests.

MR. BURDLAY HUME.—I undertook the position of a member of the Council, not as the nominee of the horticultural or any other party in the Society. I came upon it as the representative of the general Society. I beg to repudiate the idea of being the nominee of any party in the Society. We are charged with being "obstructives," but instead of that being the case we have done what we could to forward the interests of the Society; and we have been called this name because we have failed in our mission and been unable to come to terms with Her Majesty's Commissioners. I think under the circumstances we were justified in saying we would tender our resignations [hear, hear]. We never intended not to pay the prize money, but we were pressed, and the result was we received a back-handed blow, which forced the Council into the County Court. I should like to ask how we can be called "obstructives" when our exertions on the Council have been continually obstructed by matters out of doors? [hear, and "no"]. It was other gentlemen who prevented us from doing what should have been done. Although, technically, I know very well we might tender our resignations to the Council, I think that is better and more satisfactorily done through the medium of a public meeting. I am bound to say the Council has been most loyal to me in every way, and during the time I have served with them I have found every member ready to sacrifice time for the interests of the Society [hear, hear].

MR. W. B. KELLOCK.—We have elected upon the Council Lord Lawrence, Mr. Grote, Admiral Hornby, and Dr. Hogg. Thus you will find that the horticultural party will be well represented on the Council [hear, hear]. The Council consists of fifteen members, and of these eight belong to horticulture [applause].

MR. HENRY LITTLE.—I cannot sit down and hear Lord Bury's accusation without saying a few words. I have attended to the duties of a member of Council, but my feelings have never gone entirely with the horticultural party, but in the direction of the general good of the Society. When I was asked to take a seat at the Council I was told I could be useful. I have sat on the Council, and I say that Lord Bury's policy has been that the South Kensington Gardens should be kept for the South Kensingtonians, and that so far as the horticultural world went it should know nothing about them ["hear" and "no"]. That is not a policy I like. I say it is a policy which is utterly wrong [hear, hear]. What has Lord Bury done? He has nominated four Vice-Presidents. Who are they? Are they not all residents of South Kensington? [hear, hear]. Where the policy of Lord Bury failed has been in giving-up the gardens to the South Kensingtonians, and so long as Lord Bury and the South Kensington element was upon the Council, the Society would

have no chance of being extricated from its difficulties. Less than this I do not think I could say.

Mr. POWELL.—I rise in order to ask this question:—Are we going to rip-up all the proceedings of the Council and discuss what brought about the resignations of these gentlemen? I submit our business now is to deal with the resignations. We ought rather throw oil than oil and vinegar upon the troubled waters [hear and laughter].

Lord ALFRED CHURCHILL.—I beg to move a vote of thanks to Lord Bury and the other gentlemen who have tendered their resignations.

A FELLOW.—You thank them for doing their best, and then deal with them harshly [cries of "no"].

The CHAIRMAN.—All I can say as to a vote of thanks, that I will not accept a vote of thanks in the shape of an insult ["no, no," and "hear, hear"].

Mr. PINCHES.—When Lord Alfred Churchill rose I thought it was upon a point on which we might agree. It is not the fault of those gentlemen who are retiring that they have not been successful. Lord Bury and his colleagues had given a great deal of valuable time to the work of the Society, and for this his lordship had been insulted and abused in the public papers. I think our grateful thanks are due to Lord Bury, Sir Countess Lindsay, Mr. Dobree, and Mr. Hume for their efforts to promote the prosperity of the Society [hear, hear].

Mr. GUNDELLA seconded the resolution, which was carried, and the protracted proceedings were then brought to a close.

## RICHMOND HORTICULTURAL SOCIETY.

JULY 8TH.

As the first Show of a new Society we are glad to note the Exhibition a great success. The district is good, the patronage distinguished and influential, the Committee practical, and the Hon. Sec., Mr. Chancelor, indefatigable. The site—the old Deer Park—is also admirably suited for a horticultural gathering. These are elements that can hardly fail to ensure the continued success of a Society which is now thoroughly established. The schedule was well arranged, the prizes liberal, and the classes were well filled. Messrs. Jackson & Sons were successful with their fine specimen plants; Mr. Legge, Clapham Park, with his splendidly grown fine-foliaged plants; and Mr. Murrell, Camberwell Park, with Ferns and Calceolarias. The groups of plants arranged for effect were an attractive feature of the Show. Messrs. Jackson & Sons, Mr. Kinghorn, and Mr. Atrill, gardener to G. J. Frenke, Esq., were the successful competitors. Fuchsias and Pelargoniums were very fine from Mr. James and Mr. Atrill.

In the miscellaneous classes Messrs. Veitch & Sons had an extra award for a beautiful collection of plants, as had also Messrs. Jackson & Sons, Mr. Dean, Mr. Kinghorn, Mr. Charnaborn, and Mr. Herbst. Mr. Young, East Sheen, had a special award for splendidly grown Calceolarias. Mr. Turner, Slough, was to the front with Roses. Mr. James, Mr. Moorman, Mr. Cranter, and Mr. Ellis were also successful exhibitors of Roses. For glasses of flowers and bouquets Miss Kinghorn, Miss Letham, Miss MacKinnon, and Messrs. Dobson & Sons were successful exhibitors.

Of Fruit there was a good display, especially the collections from Mr. Wagstaff, gardener to T. H. Fairleigh, Esq., and Mr. Cornhill, gardener to J. S. Virtue, Esq. Mr. Pepper, Mr. Fanning, and Mr. James were also successful exhibitors. Grapes, Melons, Peaches, Cherries, and Strawberries were all well represented. Vegetables were also very good, the principal prize being a silver cup offered by Messrs. James Carter & Co., and won by Mr. James, gardener to G. F. Watson, Esq., Isleworth. Altogether the Exhibition was such as to afford gratification to the visitors and encouragement to the promoters.

## A LEASH OF FLOWER SHOWS.

WISBECH, SPALDING, AND TUNBRIDGE WELLS.

WHAT a time for flower shows we have had lately, and how it must have tried the nerves, and pockets too, of many a Society. The Royal Botanic, Birmingham, Hereford, Chislehurst, Wisbech, Spalding, Tunbridge Wells, and many others selected it for their annual gathering; and as morning after morning opened with its portentous-looking black clouds, and as the rain, sometimes in drizzling mist, at other times in perfect torrents, descended, how many must have felt that the fate of the Societies they were interested in was trembling in the balance! It required courage of no mean order to bear up under these trying circumstances, but in the two instances at which I was present I saw no symptoms of despair, but a steady determination to make the best of bad circumstances and to put a good face on the matter. It was so at Wisbech and at Spalding. Tunbridge Wells was favoured with a perfect day and a large gathering of people, and a great success must have been the result. Let me now record a few notes in connection with the three Shows above named, at which I was present.

WISBECH ought to be dear to all lovers of the Rose, for here

first were those large prizes offered which have been followed in other places, and which have tended in no slight degree to make more popular still the queen of flowers. It is favoured, too, in possessing in Mr. Baker of Colville House one of those public-spirited men whom nothing will daunt, and who carries out all he undertakes with the energy and pluck which are the distinguishing characteristics of the Englishman. He throws open his grounds for the purpose of holding the Show, and indeed I may say throws open his house also, where a large-handed hospitality is shown. Notwithstanding the counter-attraction of Birmingham, which doubtless carried off such competitors as Paul & Son, Tarnor, and Cranston, the All-England prizes of £10, £7, and £5 were ably contested by Messrs. Keynes, Cant, and Prince, and taken in the order named. I begin to think that it is quite useless to enumerate the varieties in each winning stand. I daresay I could name beforehand without much difficulty thirty-six out of the forty-eight which were to be seen in each stand, for what stand can do without Charles Lefebvre, John Hopper, Alfred Colomb, Marie Baumann, and other well-known Roses? Suffice it to say, then, that Mr. Keynes's stand exhibited that finish for which his flowers are always remarkable, and they combined size with finish, which is not often the case. Mr. Cant's flowers were also very fine, especially his Teas and Noisettes. Who can exhibit *La Bonne d'Or* as he does? while Mr. Prince's from the seedling Brier were very fine. Indeed these three stands ran very closely one on the other. Prizes of £7 for twenty-four Roses and £5 for twelve will show the liberal character of the schedule, and I have no doubt but for the Birmingham and Royal Botanic being on the same day there would have been a larger competition. The class for twelve blooms of any one Rose and that for twelve new Roses did not bring out any remarkable competition, Miss La Baronne de Rothschild being set up by two exhibitors, but with inferior blooms.

Liberal prizes for stove and greenhouse plants and exotic Ferns brought together some fine collections, of which the most noticeable were those of Mr. Cypher of Cheltenham, Mr. House of Peterborough, and Mr. Dixon of Beverley. There were amongst them some really grand plants, which would not have been out of place in any of our metropolitan shows.

Table Decorations were pretty, showing that the correct taste in such matters is rapidly extending, and that we have nearly left behind those heavy monstrosities which used at one time to be considered *en règle*. I shall have, however, more to say on this subject in my notes on the Tunbridge Wells Exhibition, where they were largely shown.

The only classes which were indifferently filled were those for Pelargoniums, and I cannot but think that an alteration in the schedule as to these would be desirable. The cottagers' classes were well filled, and showed that there is in these districts a strong spirit of emulation which cannot but be helpful to the well-being of the labouring poor.

SPALDING.—As this was held the day after Wisbech many of the fine plants exhibited there, notably the specimens of Messrs. Cypher, House, and Dixon, found their way here, while to them were superadded a large number of most excellent plants from the neighbourhood. The Pelargoniums and other plants exhibited by Mr. G. F. Barrett showed that good culture may be as confidently looked for in the provinces as around the metropolis. And let me say that I have never seen near London a finer collection of herbaceous plants than those exhibited by Dr. Stiles; and as they were to my mind one of the most distinguishing features of the Show I shall dwell a little on them, more especially as I had the opportunity of seeing their home. Dr. Stiles's garden is an instance of how *amor vincit omnia*; for in a small piece at the back of his house, no way different in size or character from those "bricklayers' gardens" which abound in all towns, he has managed to collect some of the rarest and best of hardy plants; and those who maintain that an herbaceous garden must always be rubbishy would find how erroneous this was, for Dr. Stiles's garden is a model of neatness. The twelve plants which took first prize comprised excellent examples of the following—*Equisetum sylvaticum* (nothing could be more graceful than this common British plant; grown as it had been, standing in water and shaded, it would make an admirable table plant); *Baptisium salicifolium* with large yellow flowers; *Campanula persicifolia* alba; *Campanula cordata*; *Lychnis Haageana* (admirably done); *Spiraea alpendula*; *Delphinium Beauty of Perouse*; *Campanula Van Houttei*; *Dianthus barbatus magnificus* (Mr. Ware's very beautiful double Sweet William). In the other collections and in the boxes of cut blooms I noticed *Campanula carpatia* bicolor; *Spiraea areolaris*; *Epilobium angustifolium* album; *Geum lanceolatum*; *Oenanthe caerulea*; *Geum obovatum* flore pleno; *Aquilegia chrysantha* (very beautiful); *Glaucidium Colvilli*, &c. Altogether the herbaceous plants were a great feature of the Show. Referring again to the plants, Mr. Cypher had *Ixora amabilis*, *Clorodendron Belfourianum*, *Allamanda grandiflora*, *Phoradendron proflera*, *Dipladenia insignis*. In Ferns Mr. Cypher had fine examples of *Adiantum Farleyense*, *Gleichenia dicarpa* and *spelonaea*, *Davallia Mooreana*, *Oclobium*



princeps, *Gymnogramma peruviana argyrophylla*. Mr. House and Mr. Dixon had also fine collections.

I see many flower shows and know a good deal of their management, but I knew no place where a more perfect method of management is adopted. Gentlemen are told off for the various duties, even to the minutest details. "What's everybody's business is nobody's business" finds no place here, and the result is all goes without a hitch. No one who knows Spalding will need to be told that a kind and genial hospitality is one of their characteristics. To this I at least can bear witness.

TUNBRIDGE WELLS.—Unlike the two preceding Shows, The Wells (as it is locally called) was favoured with a lovely day. The Show ground is close to the station; and on such a day as this the tents pitched in the rising ground, and the crowds which throng this fashionable watering place, made a gay and brilliant scene. There were many plants of rare excellence. I do not think, for example, I ever saw so fine a collection of *Crotons* as those exhibited here. They were old kinds, but grandly grown. The *Achimenes*, *Gloxinias*, and *Lycopods* were exceedingly well done, but in my opinion the chief features of the Exhibition were the cottagers' productions and the table decorations. Of the former it is impossible to speak too highly. The very best stand of twelve *Roses* in the whole Exhibition was to be found here, while the *Strawberries* were marvellously fine. In the table decorations Mrs. Seale of Sevenoaks displayed great taste in her arrangement, the white *Water Lilies*, *Forget-me-nots*, and *Anturium* forming a beautiful combination, although perhaps there was a little too much of the latter. Many very beautiful vases of wild flowers were shown, and the large room in which they were shown was the centre of attraction, to ladies especially, throughout the day. The arrangements here, under the able direction of Mr. Sorby, seemed admirable. And so ends my week of flower shows.—D., Deal.

### "A SCARBOROUGH WARNING."

Very few of your south-county readers will know what meaning is in that Yorkshire proverb, nor did I until a slap on the shoulder, accompanied by "There's a Scarborough warning for you," made me seek for its explanation. During Wyatt's insurrection in 1553 some of his partisans disguised as countrymen were admitted into the castle, and its garrison was overpowered first, and then told who were their captors. So "A Scarborough warning" is synonymous to the more widely-known proverb expressive of a surprise—"A word and a blow, but the blow came first."

Now, the first "Scarborough warning" I had was at York, where I was conveyed to the most comfortable hostel—comfortable from the first greeting until at the end of three days I bade farewell to my host. That hostel and host were the Black Swan and John Penrose. The first of that name of whom I have met a record was Simon de Penrose—that is, Simon living on the hill meadow, and like my host delighting in country occupations. Penrose de Oygno Nigro, or of the Black Swan, is a lover of gardening, and he evinces that love worthily. I marvelled to see all passers-by stop and look in at one of the windows, but I ceased marvelling when I passed that window and saw its tasteful decoration with flowers. They were arranged in a row of small bouquets, surmounted by a larger and high central group, arched over by a wreath, and the whole was as demonstrative of good taste in which the colours of the flowers and the foliage were harmonised as that good taste was shown in the form of the arrangement.

Then Mr. Penrose has a large garden, and is one of the Directors of the Garden and Museum of the Philosophical Society. The floral planting of that garden savours of the same guiding, and aided by the very striking variations of the surface, and its intermingling with the ruins of St. Mary's Abbey, a beauty has been attained scarcely attainable elsewhere. Those monks well understood how to combine the beautiful with the useful. The site of the Abbot's garden, like that of the Abbey, is near the river, and thus were fish and some vegetable food provided. I say "some," because every monastic establishment had farms paying their rents, in part or entire, in provisions. Thus, the Oisterian Monastery at Scarborough from its farm in the manor of Peaseholm received poultry, butter, milk, and other provisions, among which would be ducks that monks occasionally are said to have eaten on days when meat was forbidden, assigning as their justification that ducks live partly in the water, and therefore partake of the nature of fish. Let monks be condemned and ridiculed as they are, yet were they the greatest benefactors of their age; they read and wrote in the times when no nobleman could sign his name, and they were the only schoolmasters of those days; and one of the, to me, most interest-

ing reliques in the Museum of the Yorkshire Philosophical Society are two glazed tiles found in the quadrangle where the monks of St. Mary held their school, on which tiles are painted the alphabet in capital letters of the fifteenth century. Those Oisterians had eighty-five religious establishments in England, the Dominicans had forty-three, and the Carmelites forty; the Franciscans had probably as many, so that there were about two hundred of these institutions imparting and encouraging learning and the culture of the soil throughout our country. This is no mere surmise, for Dr. Walker describes the remains of an orchard in one of the Hebrides that belonged to the monastery of St. Colomb as early as the sixth century.

One note more about this neighbourhood, and then I will away to another "warning." Who that ever read in childhood that best of childhood's books "Evenings at Home" forgets the tale of "Eyes and No Eyes?" On the sands before me is an illustration of that tale. Down to 1620 Scarborough was noted for nothing but being a nest of fishermen; but in that year a Mrs. Fowler, to whom the Scarboroughians ought to erect a memorial, observed when walking along the shore a streamlet which imparted a reddish tinge to the pebbles over which it trickled. She tasted the water; it was slightly acid; she dropped it into tincture of galls, which it purpled; she drank of it; found it was medicinal; and in a few years it became a fashionable resort. Mrs. Fowler was one of that section of the community who have "eyes" and use them thoughtfully.

Beneath a cloudless sky, and with a fresh breeze keeping me cool, I passed by Carnelian Bay and Gristhorp without staying to search for the pebbles of the first, or to examine the tumuli of the other. In the latter were found the remains of a warrior, adding strength to the evidence that Filey, whither I was journeying, was the Roman station and "well-havened bay" noted by Ptolemy.

"A Scarborough warning" at length brought me to a standstill, for beside a gateway was raised a board inscribed "Bellwood's Fruit Gardens." Their proprietor and cultivator was in view, so I hailed him with, "Have you any British Queens?" "No, but I have a better kind." "Then I will buy your whole stock of plants." This led to the explanation that the variety he lauded was President, and what Mr. Bellwood meant was that they are "better" on his ground, for on it neither British Queen nor Dr. Hogg, nor some others, are good croppers. The berries of President were certainly fine both in size and flavour, and the bushes of Gooseberries and the canes of Raspberries were loaded with fruit. The Potatoes of all kinds were perfectly healthy, and above all in vigour was the Lapstone, which Mr. Bellwood briefly and justly characterised as "the best of all the Potatoes." He has two gardens, each of about two acres, and I recommend every sojourner in this neighbourhood to visit them if they covet a quart of first-rate Strawberries for a shilling, and a large bouquet of *Roses* for sixpence.—G.

### BUTTON-HOLE ROSES.

I AM surprised that no mention has been made of Safrano and Madame Melanie Willermoz; the latter is most perfect. In the article on Tea Roses (page 3), the latter is surely not correctly described. With me it is of an extremely beautiful shade of pale lemon, darker in the centre. It is most beautiful when in bud, and still beautiful when open from its exquisite shading.

How anyone can recommend Gloire de Dijon and Maréchal Niel for button-holes I cannot understand, for, as your correspondent "P." says of some other *Roses*, you might as well wear a full-expanded Paul Neron.

Might I suggest to your numerous correspondents that in giving their experience on different plants they should at least give the county from which they write? otherwise their experience is apt to mislead many others who live in a completely different climate.—H., Ayrshire.

### A WILD GARDEN.

In one of my rambles in an upland district some 700 feet above the sea, turning aside into what had been at some time a quarry, and passing by it, I came to a bank on the hillside, and to my surprise I found one of the most beautiful native gardens that I ever looked on, and what interested me was, it was purely natural, no art had laid a tool upon it. I noted down what plants were in bloom in this charming spot. The

space was some 70 or 80 yards long; and as some of our readers may be interested in our native flowers, many of which are worthy of cultivation, though we often pass them by without any concern, I mention the following as what I noted in the space above named:—

*Sedum acre*, *Centaurea nigra*, *Draba verna*, *Dactylis glomerata*, *Fedia olitoria*, *Poa trivialis*, *Pimpinella Saxifraga*, *Thymus serpyllum*, *Galium pusillum*, *Plantago lanceolata*, *Arenaria serpyllifolium*, *Galium rubrum*, *Capsella Bursa-pastoris*, *Anthoxanthum odoratum*, *Avena pubescens*, *Hieracium pilosella*, *Arabis hirsutus*, *Oratagus Oxycantha*, *Tenorium Scordonia*, *Polygala vulgaris*, *Lotus corniculatus*, *Geranium Robertianum*, *Rumex Acetosella*, *Bellis perennis*, *Epilobium montanum*, *Geranium lucidum*, *Galium aparine*, *Plantago major*, *Rosa canina*, *Cnicus lanceolatus*, *Ranunculus acris*, *Trifolium pratense*, *Leontodon Taraxacum*, *Holcus lanatus*, *Trifolium repens*, *Festuca pratensis*, *Anthriscus vulgaris*, *Veronica arvensis*, *Olinopodium vulgare*, *Alechmilla alpina*, *Poa annua*, *Trifolium medium*, *Bromus mollis*, *Galium cruciatum*, *Vicia sepium*, *Phleum pratense*, *Myosotis arvensis*, *Veronica chamaedrys*, *Hieracium boreale*, *Rumex pratensis*, *Beseda luteola*, *Sisymbrium officinalis*, *Sonchus oleraceus*, *Achillea Millefolium*, *Urtica dioica*, *Geranium molle*, *Rumex acetosa*, *Crepis tectorum*, *Briza media*, *Scabiosa Columbaria*, *Hieracium Sphondylium*, *Campanula rotundifolia*, *Cardamine hirsuta*, *Asplenium Ruta-muraria*, *Lathyrus pratensis*, *Lamium album*, *Scabiosa succisa*, *Glyceria rigida*, *Vaccinium Vitis-Idæa*, *Hellanthemum vulgare*, *Cynosurus cristatus*, and *Vicia sepium*.—OBSERVER.

### AMERICAN BUG OR BLIGHT.

HAVING derived some little experience in trying to exterminate or even reduce the above pest from over a score of standard Apples I found in my garden on coming here three years ago, I shall be very glad if these remarks may lead to further ventilation of the subject with a view to elicit, if possible, through the columns of your valuable Journal some surer mode than I think now exists to eradicate this pest from this class of fruit trees.

I found my trees almost white over with the bug; and being much overgrown from neglect, I commenced heavy pruning in August with a view to develop fruit and form, burning all the cuttings, following this by thoroughly washing each tree with warm soft soap and water, and later in the winter dressing all the old wood with paraffin oil. Last year on the first appearance of the enemy in spring I applied the soap solution mixed with Glahurst compound sufficiently frequent to keep the bug moderately in check, repeating the oil again towards winter. So far this year I have adopted the same plan, though still with all the attention I can afford I consider myself far from having succeeded, since, though I have a very fair showing of fruit, were the trees left to themselves one month they would most certainly be as I found them at the beginning.—AGRICOLA, Liverpool.

### OUR BORDER FLOWERS—DOG'S-TOOTH VIOLETS.

In our eager pursuit of the more gorgeous forms that the floral world affords us for decorative purposes do we not sometimes overlook some of the lowly flowers of hardy nature? Two hundred and more years, if report be true, has been added to the world's history since *Erythronium Dens-canis* found its way to our shores. How in those days it might be treated I have no means to ascertain; at all events we know that it has remained with us, and now enjoys a very prominent place in the spring garden and borders where those kind of plants are cared for. Sometimes we see them thrust into a corner or more than half hid by some intruding evergreen or shrub, and, what is worse, in some instances left to chance, eventually disappear, and then we wonder why they do not flourish with us.

I fear there are very few species found in general cultivation. • There is something very attractive about their beautifully spotted leaves, to say nothing of their charming flowers in early spring, when of all times during the year flowers are looked on with such delight. They will thrive in most places if they have light and air, and they can be turned to good account in many ways: they are equally interesting in bed, border, rockery, or pot. They like a moderate share of moisture, but should have thorough drainage; they do well in a compost of good friable loam and sandy peat in equal parts, a

little leaf mould, with a little sand or charcoal dust added. When established the less they are disturbed the better. When left in the ground the place should be well marked, or they are liable to be destroyed. They are increased by division, which is best done when growth has been matured. There are three or four shades of colour. When grown together they have a very pleasing effect in early spring. *Erythronium americanum* is very desirable, its yellow flowers contrasting with *E. Dens-canis* and *E. Dens-canis album* and *purpureum*. The foregoing are most commonly met with in cultivation. There are other kinds—as *E. giganteum* and *E. longifolium*—that ought to be more frequently met with, and which only require to be known and seen to be appreciated.

This is one of the most interesting families of early spring-blooming plants we possess, and worthy of very extensive cultivation.—VERITAS.

### THE POTATO DISEASE.

THE following interesting paper by Mr. Worthington G. Smith, on the disease affecting the Potato, was read at the meeting of the Royal Horticultural Society on Wednesday, the 7th inst. :—

#### THE RESTING-SPORES OF THE POTATO DISEASE.

The Potato disease in this country is rarely seen before the month of July, but this year I received some infected leaves for examination from the Editors of the *Journal of Horticulture* at the beginning of June, and my reply to the correspondent was printed on June 10th. The leaves were badly diseased, and I detected the *Peronospora* in very small quantities here and there, emerging from the breathing pores. This was a week or ten days before Mr. Berkeley brought the matter before the Scientific Committee of the Royal Horticultural Society (see *ante*, vol. i., 1875, p. 795), and when I heard Mr. Berkeley's remarks about the *Protomyces*, I immediately accused myself of great carelessness in possibly overlooking it; but I was equally certain of the presence of the *Peronospora* in the specimens I examined.

On receiving authentic specimens of diseased plants from Mr. Barron of Chiswick, the brown spots on the Potato leaves at once reminded me of the fungus of some species of *Protomyces*, and the dimensions agreed tolerably well with some described plants of that genus, but the spots when seen under a high power appeared very unlike any fungus, and they were very sparingly mixed with other bodies much smaller in diameter, and with a greater external resemblance to true fungus spores. These latter spore-like bodies were of two sizes—one transparent and of exactly the same size as the cells of the leaf (and therefore very easily overlooked), and the other dark, reticulated, and much smaller. A few mycelial threads might be seen winding amongst the cellular tissue, and these threads led me to the conclusion that the thickened and discoloured spots were caused by the corrosive action of the mycelium, in the same way as Peach, Almond, Walnut, and other leaves are thickened, blistered, and discoloured by the spawn of the *Ascomyces*, as illustrated at the last meeting of the Society.

My opinion, therefore, was soon formed that the "new" Potato disease (as it has been called) was no other than the old enemy in disguise, or, in other words, that it was the old *Peronospora infestans* in an unusual and excited condition. That climatic conditions had thrown the growth of this fungus forward and out of season was probable; but the idea that the pest would not at length attack all and every sort of Potato was to me most unreasonable, though the more tender sorts might be the first to suffer.

Suspecting the two-sized small bodies before mentioned to be of the nature of spores, and remembering my experiments during last autumn with ketchup, in which I observed that the spores of the common Mushroom might be boiled several times, and for lengthened periods, without their collapsing or bursting, I thought I would try to set free the presumed spores of the Potato leaves by macerating the foliage, stems, and tubers in cold water. This maceration was necessary because the tissue of the diseased leaves was so opaque and corroded, and the cell-walls were so thickened, that it was difficult to distinguish the threads and suspected spores from the cellular tissue. I did not treat the leaves with boiling water, because I wished to keep the threads and spores alive.

From day to day I kept the diseased leaves and stems and tubers wet between pieces of very wet calico, in plates under glass, and I immediately noticed that the continued moisture greatly excited the growth of the mycelial threads; this to me was quite unexpected, as I had merely wished to set the spore-like bodies free. So rapid was now the growth of this mycelium that after a week had elapsed some decayed parts of the lamina of the leaf were traversed in every direction by the spawn. Thinking the close observation of this mycelium in the now thoroughly rotten and decomposed leaves might end in some

addition to our knowledge of *Peronospora infestans*, to which fungus I had no doubt from the beginning that the threads belonged, I kept it under close observation, and in about ten days the mycelium produced a tolerably abundant crop, especially in the abortive tubers of the two-sized bodies I had previously seen and measured in the fresh leaves. The reason why these objects, which undoubtedly occur in and about the spots, are so extremely few in number in those positions is, I imagine, because they require a different set of conditions for their normal growth, and these conditions are found in abundant and continued moisture.

The larger of these bodies, the measurements of which I shall give, with a woodcut illustration, in an early number of the *Gardeners' Chronicle*, I am disposed to consider the "oospore" of the Potato fungus, and the smaller bodies I look upon as the "antheridia" of the same fungus, which are often terminal in position. The filaments of the latter are commonly much articulated, and sometimes more or less moniliform or necklace-like. Both oospore and antheridium are very similar in nature and size to those described as belonging to *Peronospora alismarum* and *P. umbelliferum*, and this is another reason (beyond my seeing undoubted *P. infestans* on Potato leaves at the beginning of June) why I am disposed to look upon these bodies as the oospore and antheridium of the Potato fungus.

The larger bodies are at first transparent, thin, pale brown, furnished with a thick dark outer wall, and filled with granules; at length a number (usually three) of vacuities or nuclei appear. The smaller bodies are darker in colour, and the external coat is marked with a few reticulations, possibly owing to the collapsing of the outer wall. At present I have been unable to detect any fecundating tube (described as belonging to the antheridium of other species of *Peronospora*), but I have observed the two bodies in contact in several instances. After fertilisation has taken place the outer coat of the oospore enlarges, and appears to be cast off. Both antheridium and resting-spore are so slightly articulated to the threads on which they are borne, that they are detached by the slightest touch, but with a little care it is not really difficult to see both bodies *in situ*, and my observations lead me to think that conjugation frequently takes place after both organs are quite free. The antheridia and oospores are best seen in the wettest and most thoroughly decomposed portions of the tissue of the decomposing tuber, but they occur also in both the stem and leaf. I consider Mr. Alexander Dean's remark, as reported in *Gardeners' Chronicle* for June 19th last, page 795, to have a distinct bearing on this point, where he says, "In all cases where the seed tubers were cut they were quite rotten."

Before I referred to De Bary's measurements of similar organs in other species of *Peronospora* I was disappointed with the results of my observations, and felt disposed to refer the bodies and threads in the Potato leaves to *Saprolegnia*, but a glance at the figures which I shall shortly publish, and the similar figures copied from De Bary to the same scale, will show that if the bodies observed by me are *Saprolegnia*-like, the oospores and antheridia figured by De Bary show an exactly similar alliance. Still, as the *Saprolegniæ* are at present defined, I am by no means inclined to describe the bodies observed by me as really belonging to that tribe of plants.

The *Saprolegniæ* have the habit of moulds and the fructification of Algae; and they live on organic matter, animal and vegetable, in a state of putrefaction in water. One of the best known of these plants is *Botrytis Bassiana*, the parasite which causes the disease of silkworms. Now the genus *Botrytis* amongst fungi is almost or quite the same with *Peronospora*, to which the Potato disease belongs; and I consider it a strong argument in favour of my *Saprolegnia*-like bodies being the oospores and antheridia of the *Peronospora* when such an authority as Mr. Berkeley ("Micrographic Dictionary," p. 6) considers one of the *Saprolegniæ* (*Achlya*) "may be an aquatic form of *Botrytis Bassiana*"—the silkworm disease.

The common fungus which attacks flies (so frequently seen on our window-panes in autumn), *Sporendonema muscæ*, Fr., is said to be a terrestrial condition of *Saprolegnia ferax*, Kütz., which latter only grows in water; and if a fly infected with the fungus be submerged the growth of the *Saprolegnia* is the result. It would now seem to be somewhat the same with the Potato when diseased, in the fact that when submerged a second form of fruit is produced.

Between the two moulds *Botrytis* and *Peronospora* there is little or no difference; the characters of Corda, founded upon the continuous or articulate filaments, cannot be relied upon, and even De Bary himself figures *P. infestans* with articulate filaments like a true *Botrytis*. The intimate connection, however, between the *Saprolegniæ* and some moulds cannot be denied, as the instances above cited clearly show; and I am therefore disposed to think that the fungus which produces the Potato disease is aquatic in one stage of its existence, and in that stage the resting-spores are formed.

Reference should here be made to the bodies found germinating in the intercellular passages of spent Potatoes by Dr. Mon-

tagne (*Artotrogus*), and referred by Mr. Berkeley to the *Sepedoniæ*. Ever since Mr. Berkeley first saw these bodies he has had an unswerving faith in the probability of their being the secondary form of fruit of *Peronospora infestans*, but, unfortunately, as far as I know, no one has ever found a specimen of *Artotrogus* since Montagne.

The question may, therefore, be naturally asked in conclusion—How does *Artotrogus* agree with the presumed resting-spores here figured and described? And has Mr. Berkeley been right or wrong in clinging so tenaciously to his first idea? Fortunately for the investigation of the Potato disease (which can never be cured till it is understood), Mr. Berkeley has given in the *Journal of the Royal Horticultural Society* the number of diameters his figures are magnified to, and I have here further enlarged those figures so as to correspond in scale with my own drawings, which latter are sketched with a camera lucida. It will be seen that they are the same with each other both in size and habit, with the exception of the processes on the mature spore of *Artotrogus*—which processes may possibly be mere mycelial threads, or due to the collapsing of the inflated epispor. The reason these resting-spores have evaded previous search is that no one has thought of finding them amongst leaves which had been macerated for a long period in water. There is, however, nothing unreasonable in fruit being perfected in water or very damp places, as it is common in the *Saprolegniæ*, and amongst Algae in general. To sum up, there are four reasons why the bodies here described belong to the old Potato disease:—

1. Because they are found associated with the *Peronospora* and upon the Potato plant itself.

2. Because they agree in size and character with the known resting-spores of other species of *Peronospora*.

3. Because some other moulds are aquatic in one stage of their existence.

4. Because they agree in size with *Artotrogus*.

I will only say in conclusion that it affords me great pleasure to lay these additional notes on the Potato disease before the Society which thirty years ago published Mr. Berkeley's original and excellent memoir on the same subject.

### THE QUALITY OF PEAS.

How is it that with a fine Pea season like the present one, and the market overflowing, and hard small Peas almost going a-begging, that it is so difficult to purchase a dish of really delicious Peas? Is it that raisers of Peas are paying too much regard to mere colour of pod and size? Colour is very tempting, and growers like to treat the public to a deep green-podded Pea; but such are not the best. Prizetaker, for instance, is fine to look at, but not good to eat.

When varieties of Peas were less numerous the market quality was better than now. Where is the old Early May? None of the early round Peas are equal to it, and none of them a week earlier. When that, Champion of England, and Hair's Dwarf Marrow were the staple sorts, we were certain of good Peas at every dealer's, but it is not so now. Such Peas always commanded a sale, and in my opinion would do so now.

Being neither a grower nor a seller, but a consumer, I am, perhaps, somewhat behind the fashion of the day in asking, not for grand Peas to look at, but sweet and delicious Peas to eat. Am I singular and alone?—A CITY MAN.

### FIOUS REPENS MINIMUS.

For clothing the wall of a stove or intermediate house with close green foliage the above plant is particularly suitable. It is brighter in colour than *F. repens*, and its foliage is not more than half the size of the old species, the separate leaves not being more than a quarter to half an inch in diameter. It is impossible to imagine anything clinging more closely to a wall than does this plant; in fact, it covers completely any surface and still takes up scarcely any room. It clings with the persistency of Ivy, and yet does not project from the wall half an inch. I saw it the other day in Mr. Kinghorn's nursery at East Sheen, covering the brickwork of the ends of a plant stove. For rockeries under glass, or the covering of walls of any kind, this plant is pre-eminently suitable, and can be turned to good account in surfacing knolls, boulders, and other adjuncts of the fernery. It will possibly flourish in a greenhouse temperature, for we observed where the plant had pushed itself through the seams of the brickwork that it was as healthy on the outer wall as within the house, but that of course was only the growth of the current summer. This is a distinct plant for a distinct purpose, and for that purpose—the imparting to surfaces a living green covering as close as if glued there—it is unequalled. Those seeking for a carpet plant to completely hide bare walls or other surfaces, and which re-

quires no tacking nor tying, cannot do better than try this *Picus*, which is probably a miniature and distinct form of *F. repens*.—W.

### SOLANDRA GRANDIFLORA.

This belongs to a splendid genus of plants named in honour of Daniel Charles Solander, LL.D., a Swedish botanist of great celebrity. He was the companion of the renowned Sir Joseph Banks in the memorable voyage of discovery round the world, and was the collector of the botanical notes made during that expedition, and which are now preserved in the British Museum. The plant, a bloom of which we figure, is by no means commonly to be met with in cultivation. This is not, however, because it is not beautiful, but rather that it is somewhat shy in producing its flowers. Besides the flowers being strikingly attractive by their *Brugmansia*-like form and pale yellow colour, the foliage is also agreeable, and the plant is worthy of being cultivated in our stoves. For a number of years after its introduction in 1781 this plant did not bloom. It was propagated and grew luxuriantly. The treatment necessary for the production of flowers was found out by accident, a plant being overlooked and left in a dry stove at Kew. This plant produced foliage of only moderate luxuriance, and produced a flower at the extremity of every shoot. This suggested that a period of rest was necessary, and on its being afforded the difficulty in blooming this plant vanished. The plant is propagated from cuttings, which should be grown on in loam and peat in a brisk heat and with liberal supplies of water until it has attained a good size. Water should then be gradually withheld until the leaves wither and drop off by drought, and the plant will seldom refuse to flower profusely. It is a free-growing plant and a native of Jamaica, thus requiring heat to grow it, yet a distinct season of drought and rest to induce the production of its beautiful flowers.

### THE CRACKING OF FRUITS.

This arises from different causes. In Grapes and Melons it is generally the result of an excessive influx of sap after a period of comparative drought—that is, when the autumn rains set in in the one case, and when the roots penetrate into the rotted dung of the hotbed in the other. In both cases the

remedy is in checking the sap by an incision of the stem of the fruit.

Pears crack, first as the result of spring frosts injuring the fruit in its infancy, and is then incurable and mostly unpreventable; and second by drought. This is preventable if water is provided, and time to apply it freely. With a pair of *Clifton des Carmes* Pear trees I have tried experiments with watering—soaking one tree thoroughly, and not giving a drop to the other. I have done this for some years, first with one and then with the other. Except when spring frosts have injured both by superinducing cracking, the watered tree has invariably given the largest, most juicy, and smooth fruit, that on the other tree being more or less cracked. The power of free watering in preventing the cracking of the fruit has been very striking.

Do not many of our fruit trees on a substratum of chalk, gravel, or limestone suffer by lack of a sufficient water supply in the hot summer months?—A NEW SUBSCRIBER.

FLOWER-SEED FARMING.—The large acreage devoted to this purpose by Messrs. Gair of High Holborn, in connection with their vegetable and farmseed crops, at the present time afford a delightful sight. A passing glimpse is obtained just after leaving Manningtree station on the Great Eastern Railway; but it is only the visitor to the Dedham and St. Oayth farms that can fully realise the beauties presented by the broad acres in every possible shade of colour of *Convolvulus*, *Lupinus*, *Sweet Peas*, *Nasturtiums*, *Lobelias*, *Clarkias*, *Larkspurs* (*Delphiniums*), and the like blazing under a July sun—cultivated under the skilful management of Mr. Dunnett, one of the principals. This is a rich and extensive

Fig. 7.—*SOLANDRA GRANDIFLORA*.

display, and is well worthy of a visit by all lovers of popular flowers.

### KNOTT'S GREEN, LEYTON,

THE RESIDENCE OF J. G. BARCLAY, ESQ.

This is one of the largest and best-kept places in the neighbourhood of London, and it is quite suburban, being situated in the Lea Bridge Road, about a mile from Lea Bridge station on the Great Eastern Railway—just outside the dust and turmoil of the great city. The head gardener is Mr. D. Donald, well known to fame as an exhibitor at the metropolitan exhibitions. At the time when the fine collection of stove and greenhouse plants formed by the late Mrs. Lawrence of Ealing

Park was dispersed, and when Mr. John Fraser of the Lea Bridge Road Nurseries also had a collection that invariably placed his name at the head of the prize list, Mr. Donald was working steadily in the same direction, and his stove and greenhouse flowering plants were always in a high position.

I well remember—it must be more than a dozen years ago—admiring for the first time a splendid plant of *Clerodendron Thomsonii* in his collection at Regent's Park, a well-flowered *Stephanotis floribunda*, and other masterly-trained plants, which placed his name first on the list on that occasion. Mr. Donald still exhibits flowering and foliage plants with great success. Indeed his foliage plants were awarded first prize at the last great exhibition in Regent's Park; but he has found that the claims of a large establishment which he has to supply with fruit, vegetables, and flowers, besides the requirements of a large flower garden (and spring and summer bedding is no

joke now-a-days), admits of but little time for manipulating exhibition plants. It does not require much ingenuity to discover that the exhibition tent is not the true test of the ability of the gardener; and the way in which the schedules have been compiled to allow plants ready for exhibition to be brought the day before the show, or on the same morning if you like, gives a further advantage to the longest purse. However, this is straying from the point, and may be the text of an article some other day.

Mr. Donald has been a servant in the family for twenty-four years, and during the whole of that time he has been modelling and remodelling the grounds and gardens, the whole having been laid out at different times under his direction. On first walking through the grounds you are reminded of the Regent's Park Botanic Gardens; not that there is much resemblance between them but this—anyone not knowing the extent of the

Fig. 2.—KNOTT'S GREEN.

Botanic Gardens would think them much larger than they really are, and the same impression is conveyed here. All gardens and grounds near large cities are necessarily small, and the highest art of the landscape gardener is displayed in making them appear as large as he possibly can, and this is no easy matter where there are but very few natural advantages. Here there are none, the whole district being so flat and uninteresting. There is a small piece of water in the grounds which has been made the most of, and is a great aid to the effect of the grounds; and Mr. Donald no doubt finds it useful for irrigating purposes during the summer months, as the rainfall is much below the average of the United Kingdom. In the grounds are some noble trees. A grand Plane is 32 yards in the spread of its branches; *Oratus latifolia*, a handsome specimen of which was loaded with its clusters of white flowers in June. A large specimen of a species of *Mespilus* is an attractive object in front of the large conservatory.

#### FLOWER GARDEN.

This consists of a number of plain beds on each side of the principal walk in the grounds, and a series of long borders running along the outside of the boundary wall of the kitchen garden. One or two noticeable features in the flower garden is that the summer and spring bedding work into each other. In one or two beds the summer occupants had been put out

before the others were removed. Further, very nearly all the beds and borders were filled with plants that could be easily propagated in the spring or wintered in cold frames. The long border is very effective, and is filled-in with the following plants. The edging nearest the walk is *Cerastium tomentosum*, the inside edging Silver-variegated Thyme. The space 8 feet wide between the two edgings is of scrollwork, the following plants being used: A very dwarf double yellow French Marigold, the old *Saponaria calabrica*, *Echeveria secunda glauca*, *Viola cornuta* var. *Perfection*, Golden Chickweed, *Iresine Lindleyi*, and *Pelargonium Harry Hieover*. It will be observed that with the exception of the last two plants all the others were raised from seeds in the spring, wintered out of doors or in cold frames. Two oval beds were very pretty; they were edged with *Sempervivum californicum*, next *Alternanthera amens*, with centre of *Pyrethrum* and *Amaranthus melanochloicus ruber* dotted down the centre. *Viola cornuta* var. *Perfection* is much used.

#### CONSERVATORY.

This is a very large building, and has just been erected in the centre of a long corridor which used to be considered the conservatory, but it was too narrow and confined for pleasant exercise for the family during inclement weather. The new building forms a pleasant promenade, and a purer healthier

atmosphere can be maintained in it. In the passage leading to the conservatory a border has been formed which is planted with *Lapageria rosea* and *L. alba*, with *Tea Rose Maréchal Niel* to be trained overhead. The internal arrangement is unique in its way. There is a background of artificial rock and water falling over it; this has been planted with Filmy Ferns, such as *Todea superba* and *pellucida*. The Killarney Fern also luxuriates in quiet nooks. On prominent positions on the rockwork *Yuccas*, Ferns, Palms, *Cordylines*, *Dasyliirions*, &c., have been planted, and in a few years they will cover the rugged rock, and the effect may be imagined. The plants in the centre are arranged in two large beds, and you can walk round and examine the plants in detail. The side stages are formed of ornamental ironwork and slates covered with broken shells.

Passing out of the conservatory into the arcade we reach a warmer house, where are some handsome foliage plants. *Cycas circinalis* is magnificent, which, by the way, formed one in the first-prize collection exhibited at Regent's Park last month. Mr. Donald also grows the Fountain Plant of India (*Croton angustifolium*), better than most gardeners; it requires plenty of light, and to be kept free from red spider. Another house devoted to Ferns, and then we pass into the kitchen garden, which contains, besides the usual forcing houses, vineries, Peach houses, pinneries, Cucumber houses, &c., a plant stove and a cool house with a north aspect for retarding plants. This last is a lean-to, and without such a house it is difficult to preserve plants in bloom for a length of time. The stove is a large span-roofed structure in two compartments, containing the usual selection of stove plants. *Stephanotis floribunda* and *Dipladenia boliviense* are cultivated in pots, but the growths are trained to the roof to be trained round a trellis to form specimens when the flowers begin to open. The *Dipladenia* is a very pretty species, quite distinct in the colour of its flowers, which are white with a pale yellow throat; they are also very freely produced.

#### PEACH HOUSE.

This is a lean-to, and the trees are trained in the old-fashioned way to a trellis of horizontal wires fixed to the rafters; they were in good health and bearing a very heavy crop of fruit. Royal George, Teton de Venus, and Noblesse are the sorts Mr. Donald considers best for forcing.

#### VINERIES.

The first is a house devoted to Black Hamburg, the Vines trained on the short-spur system, and bearing a heavy crop of fruit. There is also a large crop in the Muscat house. The next is a late house planted with Lady Downe's, but the fruit had not set very well. Lady Downe's requires a little attention when the bunches are in flower, and a temperature of 70° at night. There is a remarkable plant of Chasselas Musqué in this house. Although on its own roots it grows as freely as a Hamburg; the bunches and berries are more like those of the Royal Vineyard than the Frontignans, to which class Chasselas Musqué belongs. Peaches and Apricots on the wall are a heavy crop, and the trees are in good health.

#### THE KITCHEN GARDEN

Is well cropped, but there is only space to notice the Lettuce, which attracts attention as you stand in front of the vineries; the variety is All the Year Round. President, Mr. Donald considers the best Strawberry. At the time of our visit it was the great local flower show. Mr. Barclay very kindly allows the Committee of the Leyton, Woodford, &c., flower and fruit Show to hold their Exhibition in his grounds, and his kindness and consideration are also shown to the gardeners and visitors from a distance by substantially providing for their comfort, an act of kindness which is duly appreciated by them.—J. DOUGLAS.

#### CANTERBURY BELLS.

AMONGST the most telling and beautiful border flowers are these gay Campanulas. The white is pure, the blue rich, and the rosy pink-tinted varieties are particularly attractive.

The strain, the flowers of which possess coloured calyxes, is a great acquisition, as affording a greater mass of colour and also of longer continuance than the normal varieties.

This is admirably adapted for conservatory decoration, as affording a mass of colour which is always welcome in glass structures; indeed, than fine plants of *Campanula media calycanthema* nothing can well be more distinct and attractive.

Seed should be sown at once, and be encouraged to germinate

quickly. It is best sown thinly in pans, to be placed in a frame, and have shade and water. If sown in the open garden, and dry weather sets in, the plants may not attain a size sufficient to bloom well. The seedlings should be transplanted in good soil in the open garden where they may remain all the winter, but it is as well to pot in the autumn those required for indoor decoration, and winter them in cold frames, when a somewhat earlier bloom will be obtained.

It is only recommended that the seed be sown in pans because of the late period of the year. It should properly have been sown a month ago in the open ground. Experience, however, has proved that if sown at the present time as above directed, beautiful plants will be produced which will contribute a rich effect in either the conservatory or garden.

The extended culture of these Campanulas is strongly recommended, and those who procure seed at once will eventually have a return more than commensurate with the trifling outlay and little care required to produce a supply of plants. But time is on the wing, and there must be no delay in sowing the seed.—AMATEUR.

#### NOTES AND GLEANINGS.

In reference to the FAULT CROP of this season, Mr. Francis Dancer of Little Sutton, one of the largest growers in the neighbourhood of London, says, "We are propping up our trees in all directions."

— An important discovery has been made by Mr. Worthington G. Smith in connection with the POTATO DISEASE. That gentleman has found that the same fungus which produces the murrain from which the Potato has been suffering during the last forty years is the same as that which produces the "curl" or "new disease" with which we are at present threatened with a recurrence. The only difference is that in tubers affected by the curl Mr. Smith has found the "resting-spore" which he never before detected in those affected by the murrain. The difference between the two diseases is the Murrain is the result of the fungus attacking the leaves and haulm after the tubers have been fully, or nearly so, grown; and the Curl is the effect of its attack on the collar of the plant before it has made much growth, and before the tubers have attained any size. In consideration of this discovery the Royal Horticultural Society at the Scientific Committee, of which Mr. Smith first announced the result of his investigations, have through the Council awarded him a Gold Medal as a reward of merit.

— At a Committee Meeting held at the HORTICULTURAL CLUB HOUSE on Wednesday the 7th inst., T. E. Barlett, Esq., of Pennell Court, Aylesbury, and Wentworth Buller, Esq., of Exeter and Clifford Street, were elected members of the Committee; and the following gentlemen balloted for and admitted as members of the Club: Professor Dyer, Dr. James H. Bannet, Dr. Denny, Dr. Stiles, Messrs. W. E. Dixon, Wm. Marshall, J. T. McCullum, J. A. Anderson, Burnaby Atkins, G. F. Barrell, Robert Veitch, and E. R. Cutler.

— We understand that Messrs. Sutton & Sons' extensive ROYAL MUSEUM OF AGRICULTURAL PRODUCTS is being exhibited at the Great Agricultural Show at Taunton.

— THE HORTICULTURAL SHOW IN BURGHLEY PARK in connection with the Northamptonshire Agricultural Society's Meeting on the 15th and 16th September next, bids fair to be on an extensive scale. The schedules of prizes, and also those for cottagers, are issued, and may be had on application to the Secretaries. P. McKinlay, Esq., of Woodbine House, Beekenhams, Kent, has presented four prizes of £1 10s., £1, 10s., and 5s. for six varieties of Potatoes, six of each sort, to be grown and exhibited by cottagers.

— You have informed the readers of the *Journal of Horticulture* that a special ROSE SHOW would be held at Lyons on the 11th, 12th, and 13th of June. Rose-growers and amateurs who know that the best Roses in their collections have been raised at Lyons must have been waiting with anxiety the report of that Exhibition, particularly on account of the new seedlings. Unfortunately the Rose Show required the authorisation of our Prefect, which was refused.—JEAN SISLEY, Lyons.

— We have received from Mr. Murray Mr. Darwin's new work on "INSECTIVOROUS PLANTS," a subject which has of late engaged the attention of scientific observers and excited the curiosity of the public generally. In such hands as Mr. Darwin's we expect to find the subject treated in the masterly manner in which that great naturalist always does whatever



comes within his grasp, and in this we are not disappointed. We will shortly return to the subject and give it a more lengthened notice. In the meantime it is sufficient to say that those who have not seen the book will do well to procure it without delay.

— We are requested to invite the attention of persons interested in Pelargoniums to the fact that the Exhibition of the PELARGONIUM SOCIETY will take place in the gardens of the Royal Horticultural Society, South Kensington, on Wednesday next, July 21st. It may, perhaps, prevent some confusion as to the entries if it is pointed out that the Show, being held subject to the regulations of the Royal Horticultural Society, notices of entries should be sent in to Mr. Barron at South Kensington in the usual way. The annual meeting of the Pelargonium Society will take place at Chiswick, by permission of the Council, on the afternoon of the 22nd inst., the day following the Show; and as it has been suggested that the members should dine together after the Meeting, it would be well that those who may be able or desirous to do so should notify this to the Hon. Secretary not later than Tuesday, in order that arrangements may be made for their comfort and convenience.

— On Tuesday the 6th inst. the EMPLOYEES at the WALTHAM ONES NURSERIES were entertained at supper by Mr. Arthur W. Paul, son of the proprietor of the nurseries. The supper was served in one of the greenhouses, having been preceded by a holiday. Subsequently the main walks of the nurseries were illuminated with oil lamps and Chinese lanterns, about a mile of chains being used to support them. The band of the West Essex Yeomanry was stationed in the nurseries, and played during the evening. At 9 P.M. the nurseries were thrown open to the public, and between five and six thousand visitors availed themselves of a most agreeable promenade. A handsome inkstand was presented to Mr. Paul, jun., by the employees.

#### THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 2.

I do not know whether any reader will dispute my right to speak of the old gardens of the City of London under the heading of "market gardens," yet it may be as well to give proof that they may be lawfully so designated in some sense. London citizens have always been famous for their skill in trading; and at an early period citizens and gentlemen too—nay, the very clergy also—did not hesitate to make their gardens in the City or its outskirts a source of profit. They might have given away the surplus above their own requirements to the poor, especially the Church dignitaries, but they did not in the general way do so; let us hope they did so sometimes. As, however, in our own day amateurs see nothing unbecoming in the act of sending their fruit and vegetables into the market, we need not pass a vote of censure on London citizens in the days of the Henries or the Tudors, at least not on this ground. But it would seem from some of the old chroniclers that these citizens, or their servants, were not unfrequently to blame for the way in which they disposed of the refuse of their gardens, which, instead of being properly decomposed and then utilised, was allowed to remain to vitiate the air and offend the noses of residents in the neighbourhood. We gain a little inkling into the way in which City produce was sold a few hundreds of years ago by an old petition dated 1845, which still survives amongst London's records, and which was addressed by the gardeners of several earls, barons, bishops, and of sundry citizens of London also, to the Mayor. The burden of it is a complaint that they were not then allowed to stand in peace, as had been their privilege heretofore, in front of the church of St. Austin, there to vend the garden produce of their said masters, but were ordered off by some officials or other persons, representing the functions of our modern police, I suppose. There are always two sides to a story, and a declaration was made on the other hand by the clergy that these gardeners were a nuisance to the priests singing matins and mass, and to many, both clerks and laymen, who were passengers, by reason of the scurrility and clamour in which these and their assistants indulged themselves while selling pulses, cherries, vegetables, &c. Pulses, we may presume, stood for Peas and Beans: we have here incidentally another proof that London City and its suburbs were once famous for Cherries. However, the Mayor found himself obliged to give orders that they should no longer vend garden stuff in that spot, and the gardeners had assigned to them a new place between the south

gate of the churchyard and the garden wall of the Black Friars of Barnard's Castle.

Of course, as London gardens became quite insufficient to supply the City with vegetables and fruit, country folks mingled with these City gardeners, and in fact, as it might be supposed, at last drove them out of the field. Various chroniclers have references to the early coster, or costard-mongers, who made the streets echo with cries that would now indeed seem extraordinary. "Ripe young Beans!" would not attract us, for we do not prefer Beans for the table that are "ripe," if we understand by the word Beans with the pods fully matured. "Ripe Cowcumbers!" with an emphasis on the *cow*, is not so unlike the nineteenth century, but we have not persons who make it their sole business to sell Artichokes, that vegetable being formerly in high favour. "White St. Thomas's Onions!" and "White Radishes!" are cries which indicate that an absence of colour was appreciated by our ancestors. A large trade was done in herbs which were used, not merely in soups and pies but were also employed in decoctions and infusions for medicinal purposes, seeing that foreign and more potent drugs were scarce. A proclamation of the reign of Charles I. denounced pretty strongly oyster-wives, herb-wives, tripe-wives, and others of the street-vending class, on account of the noise they made; thus proving that these folks in Stuart-London understood and acted on the principle that if you want business you must call it, and not wait for it to come to you.

London was then progressing marvellously, and the garden ground in the City limits had greatly diminished, but in the fourteenth and fifteenth centuries there was much of the land under cultivation for culinary purposes, while orchards and pleasure gardens well shaded with trees gave a semi-rural aspect to the vicinity of some of the bustling thoroughfares. To nearly all of the respective Halls of the Companies was attached a plot of open ground, and then there were besides the domains of nobles resident in the City and those of the well-to-do citizens; yet it would seem that the largest part of the garden land or vacant space belonged to the different monasteries and convents, then excessively numerous. And in many cases, besides the ground held by the Church in connection with some building, there was a separate residence belonging to the abbot or prior at a distance from it. What the monks grew I suspect they rarely gave away, as the conventual life does not usually affect men's appetites unfavourably; at least, if we are to believe history, it certainly did not in those days.

A mention of a few of these will show how much land was formerly at the disposal of ecclesiastics, and makes us more indignant to think that these establishments, as Rymer tells us, were exempt from all rates and taxes—they had not even to pay highway tolls.—J. R. S. O.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

THE STRAWBERRY for forcing and general culture ought of necessity to claim considerable attention at this season, for as the fruiting season is now about over it will be the most convenient time for raising young plants for future crops. The fashion of allowing a Strawberry bed to exhaust itself in one spot for a number of years is fast dying out, for by such a plan of culture where the plants young and old are allowed to become mixed together as if it were a grass plot, it cannot be so satisfactory in its returns as by the new plan of growing every sort separate, and every row, and every plant in the row, has its space to itself. By this plan high cultivation can be more easily practised, and the returns are therefore greater and the fruit finer and of better flavour than in the case where old stools and young runners are mixed together in the same beds.

When I first went in a garden to work it appeared to be a question of pride as to who could keep a Strawberry bed in bearing the longest; the palm generally falling to those whose soil was of a rich and rather tenacious character, for this is the kind of soil the generality of sorts will best thrive in; but in these days three or four years is considered a fair time for the duration of a Strawberry bed. During this time the plants should be well attended to, and no useless runners should be allowed to remain attached to the plants to draw the vigour from the fruiting plant.

The ground should be well prepared by deep trenching and rich manuring before planting, and after that the soil around the plants should be kept as clean as that of a flower bed, and by surface-dressing with manure while the plants are in a bearing condition, together with ample waterings in dry weather, will make up the principal conditions under which heavy crops of fine fruit are produced. By this plan the sorts can be kept true. Every plant that proves unhealthy or unfruitful



can be weeded out, and the process of gathering and otherwise attending to the plants and fruit can be done much more conveniently.

Those who contemplate making new beds should raise the plants at once. There are several ways of doing this; but if for forcing purposes a capital plan is to select the best young plants, and fasten them into small 60-pots, full of a good mixture of soil, without detaching them from the parent plant; here the pots are soon filled with roots, and the young plants may then be cut off, and be placed together on a bed of ashes or soil, for say a fortnight; they will here make a lot of roots in that time, and should then be potted into larger pots, in which they are to fruit.

Some use 24's or 8-inch pots, but for my part I consider them too large. Those called 32's, or 6-inch pots, are plenty large enough, and even in pots a size smaller the Strawberry plant fruits well. Why large pots are not so suitable is because the plants have little time to do their work before winter sets in, and at that time the pots ought to be full of roots; but if the pots are too large they cannot be so, and moreover for forcing in a small way with little room to spare, large pots would not do.

A very suitable soil for them is a strong loam, say two-thirds to one-third of rotten dung. They should be potted rather firmly, and let the pots have a broad piece of broken pot at the bottom, with rough turf or rotten dung over it.

Now there is not a doubt that the above method is as good as any for raising plants for outdoor plantations also, because the object should be to have the plants well established and strong before winter sets in, and besides, if well grown now, they will produce a fair crop of fruit next year; and although there are other ways when many are required to be raised, such as cutting the little plants off and pricking them out thickly on a bed of nicely-prepared soil, or by letting the plants root in the place where they grow, and taking them up carefully with a trowel, and finally planting them out; but they require much extra care that way, and do not do so well the first year, neither would they be so likely to withstand the severity of the weather. By the pot system almost, if not quite, a season is gained, because the plants raised in a less substantial manner would not be much more forward at the end of next season than these will be at the end of this present one. Always take runners from the most healthy and fruitful plants.

A word as to sorts, of which there are now many in cultivation; and I am of opinion that few, if any, excel the Keen's Seedling for either early forcing or for general plantations. There are many larger sorts. Sir Joseph Paxton is a large good-flavoured Strawberry, so is President, La Constante, British Queen, and Dr. Hogg. The last-named is more uncertain than the others, for it does not do well in all places. For forcing they may be carried into the forcing pit in the order they are named; and for outdoor plantations Keen's Seedling will come in first, Sir J. Paxton and President nearly together, but the latter keeps in bearing the longest, then comes La Constante, and next British Queen, and last of all is Dr. Hogg. When this variety does well it is good in all qualities either for pot culture or garden cultivation.—TROS. REEBOB.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

We have finished layering the Strawberries except in the case of one or two scarce varieties of which the runners were not ready. It may be as well to mention that all our plants are layered as soon as we can obtain runners, both for planting out and for pot culture. It is best to use small pegs to keep the runners in their places; some growers recommend a stone placed on the bine to hold it in position, but the stone does not hold the runner firmly if careless feet are treading amongst the plants to gather fruit or to apply water to the pots. The runners are generally established in two weeks, and ought to be cut away from the parent plant, as the pots are generally crowded together on the beds and the leaves become drawn. In another fortnight from the time of cutting away the runners from the parents they may either be planted out or potted, for if they remain too long in the small pots these become too much crowded with roots, and the growth of the plants is checked. Our ground is not prepared as yet, but it will be deeply trenched immediately, working some good manure into the bottom of the trenches and some nearer the surface. The Strawberry beds will be made on the ground which has just been cleared of early Peas and early Cauliflowers.

White or Sprouting Broccoli may be grown on the ground occupied by the Strawberry beds, and for this crop it is not necessary to do more to the ground than to hoe off the Strawberry plants and to put out the Broccoli plants at once. Digging or trenching the ground sometimes does harm, and applying manure to the ground enriched the previous year causes a gross succulent growth, with which the frost plays and havoc during

the winter months; whereas the firm stocky growth made on the solid ground gives compact firm heads, and there is not half the risk of winter frosts doing damage to the plants. Planted out *Coleworts* for use late in autumn and early in winter; it is desirable to plant again a month hence. Sprouting Broccoli has also been planted out.

Having finished summer-pruning all dwarf and pyramid-trained fruit trees, nothing remains now to be done but to keep the ground clear of weeds by occasional hoeing, and if time permits, to look over the trees, removing all fruit attacked by the Apple-boring maggot. Now is the best time to destroy this pest, which often becomes a serious hindrance to fruit-culture, when, as was the case once with us, quite three parts of our choicest Apples were destroyed and a large proportion of the Pears. Nothing is better than hand-picking, and all the fruit should be taken away and be destroyed. In fact, it was once taken into serious consideration to destroy all our fruit for one season as soon as it was set; the entire crop would have been lost for one year, but the maggot would not have been able to breed, and we might have got rid of it entirely. Certainly this plan would have been the best one if no other fruit trees had been in the immediate neighbourhood.

Many persons will not thin their wall fruits until after the stoning period: this will now have been effected. Peaches and Nectarines ought to be thinned out to the required number at once. It is a great mistake to allow wall trees to bear too much fruit. One Peach to a square foot is quite thick enough. Nectarines may be a little closer, but it has been proved again and again that not only the finest fruit but the heaviest crop has been produced when the fruit has been judiciously thinned out. The finer varieties of Pears on the walls must also be well reduced in numbers according to the size of the fruit. It has not been necessary to water the wall trees as yet, but this ought not to be neglected if a dry period sets in.

### VINERIES.

We have cleared off the fruit from the Vines in the earliest houses; and the leaves, though considerably damaged by the attacks of red spider, have not suffered so much that the Vines will be injured. One gardener we heard of, who had some very well-ripened Muscats, stated that he had not a leaf left on his Vines. The fruit would no doubt colour well under such circumstances, but it would be wanting in flavour, and the Vines will certainly start into growth, which will weaken their chances of producing good fruit next year. Our aim now is to keep the leaves on the plants as long as we can, and it is possible to do this by washing the leaves well with a good garden engine; the houses are also aired freely night and day. The old gardeners advocated taking off the lights from the roof altogether. This is not necessary, unless they are required to place in the front of walls to ripen the crops of Peaches or the finer Pears. We have never taken the lights off during the summer and autumn months, but all the air is admitted that it is possible to give the Vines, and all the attention required now is to see that they are kept clean, and have all decaying leaves removed. The Grapes are commencing to colour in the late houses, consequently the supply of atmospheric moisture is diminished, and a circulation of air kept up night and day. At this season a high night temperature is to be avoided, but the weather has been so dull and cold during the past week that it has been necessary to have fires in all the forcing houses.

### ORCHARD HOUSE.

The fruit has received a final thinning on all the trees, and both Plums and Pears have required to be thinned out this year. The trees are making rapid growth, and it has been necessary to stop the growths, and where these are too thickly placed to thin them out. At frequent intervals a portion of the surface-dressing is applied, and this is better than putting too much on at one time. A high temperature is kept up by keeping the house moderately close by day and shutting up early in the afternoon.

### GREENHOUSE AND CONSERVATORY.

*Pelargoniums* that have done flowering are removed out of doors. Some persons lay the pots on their sides to "dry the plants off." It is a serious mistake this system of drying everything off as soon as the flowering period is over, and it is most unreasonable. The wood is not always ripe, and if this is not matured drying-off will not do it. When the wood appears ripe we water only moderately, but always giving sufficient to prevent the young rootlets from being destroyed. If a heavy fall of rain should take place, or continuous wet, the pots are laid on their sides, but are placed upright in dry weather. Of course some will say this is a deal of trouble; well, it is as to those who have little heart in their work, but success in gardening is only attained by taking great pains with even the minutest details of the work. When it is time to cut the plants over, the mould in the pots ought then to be quite dry, which will prevent bleeding. In a very few days after cutting the plants over the buds will start into growth, and then water may be applied to the roots.

We have removed the *Ascleas* from the greenhouse to a house

where they can have more heat. The plants are well syringed twice daily, and besides artificial heat, the house is shut up early, say at 4 p.m. It is necessary to shade when the sun acts directly upon the glass. Small plants have been potted; good turfy peat without any other mixture is the best potting material for *Asaleas*. The pots must also be drained well, and some fibry material be placed over the drainage to prevent the finer particles from mixing with it. *Asaleas* when making their growth require considerable supplies of water, and if it cannot pass through the pot freely the peat becomes soured, the foliage assumes an unhealthy tint, and the chances are that the plant is dead before the cultivator knows it, unless he has large experience in plant-culture. A few *Carnations* and *Pioteas* arranged amongst the plants have a very good effect, and the ran flowers of *Carnations* are quite as attractive to the uninitiated as are the pure flowers, and they are very useful for cutting; indeed, some that run to seeds of the scarlet and purple shades are even more useful for this purpose.

The pendant drops of the *Fuchsia* ought not to be dispensed with in the greenhouse all through the summer. It is thought to be a common flower, and therefore not aristocratic enough for some. These who would like to see this old favourite trained to the best advantage should visit Mr. Fraser's nursery in the Lea Bridge Road, London. They are trained to the rafters of his show house, and the effect of the crimson and white drops pendant overhead is charming. Not all the varieties are adapted for this mode of culture. Those grown and recommended by Mr. Fraser are *Arabella*, white tube and rose-coloured corolla; *Delight*, crimson tube and sepals, white corolla; *Hugh Miller*, tube and sepals pink, purple corolla; *Noblesse*, crimson sepals, dark violet corolla; *Snowdrop*, scarlet sepals, white corolla. These are all single varieties. Amongst the double sorts are found the following: *Alpha*, tube and sepals red, corolla blue; *Avonmore*, carmine tube and sepals, violet corolla; *Diadem*, tube and sepals red, dark violet corolla; *Empress*, tube and sepals white, red corolla; *La Neige*, tube and sepals red, pure white corolla; *Maréchal McMahon*, tube and sepals bright red, plain corolla. *Fuchsias* require to be potted in rich turfy loam, and when growing freely they require plenty of water.

Training the young growths of *Lapageria*. The white-flowered sort is even more robust in its growth than the older red variety. They are now growing freely, and the young shoots require to be carefully handled, as they are easily bruised. The best trellis to train them to is one of iron wires placed a foot apart, the intermediate spaces to be filled with string. The shoots may be allowed to twine round this, but not round the wires. The plants ought now to be syringed daily.—J. DOUGLAS.

## HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

DARLINGTON.—July 16th, at Southend. William Hodgson, Sec.  
 COVENTRY (at Coombe Abbey).—August 17th. Mr. T. Wigston, 2, Portland Terrace, Sec.  
 BRISTOL.—July 19th and 20th. Mr. R. Fox, Sec.  
 BRISTOL.—July 22nd. Mr. W. J. Roberts, Sec.  
 BRIMSWORTH, N.B. (Rose Show).—July 23rd and 24th. Mr. W. Ure, Wadell, Sec.  
 GLOUCESTER.—July 24th. Mr. S. H. Williamson Hon.-Sec.  
 BRIDGE.—July 27th. Mr. E. Hardman, Hon.-Sec.  
 PASTON.—July 28th and 29th. Mr. W. Troughton, 4, Church Street, Hon.-Sec.  
 SHEFFIELD.—July 28th and 30th. Mr. H. W. Admitt, Hon.-Sec.  
 SOUTHAMPTON.—July 31st and August 2nd. Mr. C. S. Fridge, 22, York Street, Lower Avenue, Sec.  
 REDBURY (Cottagers).—August 3rd. Mr. W. M. Hughes, Sec.  
 WESTON-SUPER-MARE.—August 4th. Mr. W. B. Frampton, Sec.  
 ILKESLEY AND SHIPLEY.—August 4th and 5th. Mr. E. Blount, Sec.  
 NEWPORT (MONMOUTHSHIRE).—August 5th.  
 OLEY.—August 7th. Mr. Jno. Lee, Hon.-Sec.  
 ROSEDALE-NEWCHURCH.—August 7th. Mr. M. J. Lonsdale, Newchurch, Sec.  
 CANTERBURY.—August 19th.

## TO CORRESPONDENTS.

"All correspondence should be directed either to 'The Editors,' or to 'The Publisher.' Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

WILD ROSE IN IRELAND.—Rev. S. A. Brennan, Pomeroy Rectory, Co. Tyrone, writes, "In your issue of July the 1st, answering the query in regard to a Rose which I sent to be named, you mention that you would wish to know

the circumstances of the Rose which you state is apparently 'Rose Gallica.' It is very common in the Co. Tyrone, Monaghan, and Fermanagh, growing in hedges and by riversides away from houses, seemingly in a wild state, which has puzzled me, as no notice seems to have been taken of it by botanists."

ROSE FOR WALL OF VINEY (J. L. C.).—No Rose that we know would give satisfaction trained to the back wall of a vineyard, the position being too dark from being shaded by the vines; but if, of course, it were only moderately shaded Miss Gray (Noisette) or *Maréchal Niel* (Tea-scented) would answer. We do not remember having overlooked your query.

EVERGREEN FOR NORTH ASPECT (*Idem*).—*Ocotoneaster microphylla* would suit, and for a north wall nothing is finer than *Jasminum nudiflorum*, which flowers in winter, but it is not evergreen. *Berberis Darwini* might also probably succeed. For a north aspect nothing is comparable to Ivy in its green and variegated varieties.

LARGE FUNGUS (C. B.).—The large fungus of which you have sent a portion is the "Giant Puff Ball," and is edible. You may cook them thus:—Slice them an inch thick; have ready some chopped herbs, pepper, and salt; dip the slices of Puff Ball into yolk of egg, and sprinkle the herbs upon them; fry in fresh butter, and eat immediately. They are lighter and more wholesome than egg omelettes, and resemble brain fritters," so says Mrs. Huxley.

DARLINS (Della Rocca).—The cause of your Dahlias making roots but no top-growth is, we imagine, the results of overprying the roots during the winter. If kept too dry the crowns shrivel and the buds are killed, while the more fleshy part of the tubers remain sound and emit roots.

CATERPILLAR (*Biceps*).—The caterpillar crawled out of the box and disappeared. Could you send us another?

COMOPHALLUS SULCIFRONS (H. G. W.).—This is quite a different plant from "Lords and Ladies," though it belongs to the same natural order.

SHEDDING PANSY (*Viola*).—The flower was completely shrivelled up, but we could see that the colour is good.

GREEN ROSE (H. W. Lowe).—The green Rose is not at all uncommon. You will see it figured and many notices of it in our twenty-third volume.

CHEQUER OR CHEEK TREE (J. P.).—This is *Pyrus torminalis*.

HERBARIUM SPECIMENS (G. B.).—Apply to Mr. F. Y. Brocas, 4, MITT Street, Hanover Square, W. He may also be able to inform you where the seeds are to be had.

HYBRIDIZATION (P. Stubb).—There is no work on "artificial hybridization" that we know of. There is no difficulty in performing the operation in an ordinary way, which may be done thus:—When you have chosen the two plants which you intend to hybridize, and decided which of them is to be the seed-bearer, remove from this all the stamens as soon as the flower is sufficiently expanded to enable you to do so. See that the anthers have not yet burst and distributed their pollen on the pistil. Then take from the other plant some of its pollen on the point of a camel's-hair pencil, and apply it to the tip of the pistil, which is called the stigma, of the other, and that is all that is needful for you to do, Nature will do the rest.

PLANTS FOR SPRING BEDDING (Paul).—Excepting annuals you have put off until too late the sowing of seed of some plants which are useful for spring bedding. We name a few for autumn sowing—*Collinsia verna*, *Laetia californica*, *Linanthus Douglasii*, *Nemophila insignis* and its white variety, *N. maculata purpurea*. *Pyrethrum Golden Feather* may be sown for its foliage, also *Dall's Crimson Beet*, *Sagoraria calabrica* and its white variety, *Silene pendula alba*, *S. pendula compacta* and its white variety, and *Silene pendula ruberrima*.

PROPAGATING GOOSEBERRY AND CURRANTS (*Sergeant*).—Take cuttings of the current year's growth in the autumn when the leaves have fallen, and cut into lengths of about a foot, removing all the eyes except the four uppermost, removing the weaker part of the cuttings—viz., the points, and cut transversely below the lowest eye or joint, and insert in rows a foot apart, and the cuttings about 3 inches asunder, putting them in the soil about 6 inches, and make the soil firm about them. They will be fit to transplant the autumn following. What other fruit is it you wish to know how to propagate? The Apple tree "broken off" at 18 inches from the ground we should securely stake if there is any portion of bark left unbroken, and then bind the stem over the broken part, and so as to bring close any splinters, with soft rope, bringing it above and below the broken part as far as at least as the rent extends, and cover this with a pigment of cow dung and clay well worked into a stiff mortar-like consistence, and cover the wounded part as in grafting, adding a little moss on the surface to keep from cracking. It may be sprinkled every day with water, which besides keeping the pigment from cracking will assist the flow of the sap. If there is no live bark your only plan will be to wait until spring and then graft.

SOIL FOR SCARLET GERANIUMS (R. L. E.).—For the pot plants we advise an admixture of three parts turfy loam, enriched with a part each of leaf soil and well rotted manure, with a sixth of silver sand, and good drainage. Those in the beds we should mulch with short manure, and point it in with a fork if you can do so without injury to the plants, but do not disturb the roots. The mulch may be put on an inch thick, watering freely during dry weather. Do not remove the plants for the adding of fresh soil, but give the beds a liberal dressing in the autumn of turfy loam, rather strong in texture as your soil is light, and manure freely, digging it deeply in before winter. This will make the soil more retentive of moisture, and will not cause greenness in growth, as would probably be the case were the manuring deferred until spring.

PELAGONIFLUM SNOW (*A Weekly Subscriber*).—Anybody may compete at the Pelargonium Show, whether a member or not.

SHEDDING GERANIUM (H. & S.).—We cannot call to mind anything that tallies with the description you give of your sport, but the varieties of all kinds of the *Pelargonium* are so numerous now that it is difficult to speak positively. Send it up to the Floral Committee of the Royal Horticultural Society.

ZONAL PELARGONIUMS (*Subscriber*).—The names of the raisers are given in parentheses—Hector, scarlet (Bull), Hector, rose (G. Smith), Warrior (G. Smith), Clipper (Bull), La Grande (G. Smith). We have no record of the raisers of the continental varieties which you name.

CAMELIZIA LEAVES SCORCHED (F. O. M.).—We do not think the scorching is due to deficient ventilation, but to a lens in the glass. You can easily by examination ascertain if this is so. It is easily preventable by applying a thin covering of whitening mixed with milk to the glass, and thus secure a partial shade, which is essential to the health of *Camelias*.

**GLAZING HARDY FERREY (Q.).**—You will find 21-oz. glass quite strong enough, and if it is shaded a portion of the day you need not go to the expense of rolled plate.

**PEACHES SPOTTED (Subscriber).**—The spot you allude to is, we suspect, mildew. Dust with sulphur, and give the trees on the back wall a soaking of water in which guano and common salt is dissolved at the rate of half an ounce of each to each gallon of water. This with a pure air will, we think, effect an improvement in your trees.

**PRIZE SCHEDULE (J. C. M.).**—Certainly black and white Grapes can be shown in a collection of fruit of six distinct varieties. If it had been six distinct kinds they could not.

**TREES SHADING BORDER (A Working Lady).**—You can cut the trees over now, and grub the roots in the winter.

**STRAWBERRIES (L. B.).**—Viscomtesse d'Harcourt de Thury, President, and Dr. Hogg are the varieties we recommend. You give us no date whereon to advise you as to the size of the beds. On cultural points you cannot do better than follow the advice of Mr. Record and Mr. Douglas which is given in another column.

**VINES RAISED FROM SEED (Walter).**—The Vines will fruit, but not in small pots; they should at once be shifted into 18-inch pots, and the canes be trained about a foot from the glass. They require free watering and sprinkling with water overhead twice daily. They should have a compost of light turfy loam three parts, well rotted manure a part, and a sixth of half-inch bones well mixed, and the pots well drained. We should not, unless you have heat, give the plants larger pots this season than 9-inch, and in spring turn them out of the pots when they begin to grow, shake all the soil from the roots, and repot in the same size, shifting into larger when the roots are filled with roots. We do not consider you have a chance of fruiting them until the year after next.

**MAUVE-COLOURED VIOLA (Idem).**—We do not know of a better than *Mauve Queen*. There is some mauve even in *Perfection*, but the seedling you describe as large as *Perfection* of a mauve colour may or may not be an acquisition. You should submit it to some authority, as most raisers do not care to trust their own judgment in determining the value of their seedlings.

**VINES UNHEALTHY (H. B.).**—Red spider—which we note is this year very prevalent—is the main cause of your Vines losing their foliage. The insects appear to be dead now, and your Vines with careful attention will recover. We should, however, give the Vines a thorough washing with the syringe—that is, apply the water forcibly to every part, avoiding as much as possible directly striking the bunches. We are aware this will wash off the bloom from the Grapes, but still we advise it as the lesser of two evils. That must not be a common syringing, but a heavy drenching. Afterwards paint the hot-water pipes with sulphur, and heat them sufficiently to cause a strong smell, ventilating in proportion so that the night temperature does not exceed 65°, and the day temperature with sun 85°. Leave a little air on at the top of the house all night, and especially increase it in the morning as soon as the thermometer begins to rise. Early closing—so long as the temperature does not exceed 65°—and early opening of the ventilators, are vital conditions in Grape culture. It is just possible the night temperature may have been kept too high and the house too close by not admitting air sufficiently early in the morning. That, however, is only conjecture. It is very common for a hitch to occur in some way on a change of gardeners, though no real fault of either. Time is necessary for a man to thoroughly comprehend not only the resources of a place, but its peculiarities and liabilities, and an able man will profit by any untoward and unexpected results. Write to us again in a month, and tell us the exact state of your Vines at that time, when we shall be glad to give you further advice on the matter.

**INSECTS ON VINES (H.).**—Fumigation with tobacco on two successive nights will destroy the green fly, following the fumigation by syringing. Clear water is the best antidote against red spider. By regular syringings and sufficient atmospheric moisture this insidious pest may be prevented doing injury. Where it is established thoroughly drenching the foliage, and subsequently creating a strong smell of sulphur by painting the pipes when they are heated, at the same time securing a pure atmosphere by a continuous current of fresh air night and day, is the best practice to adopt. Fumigation will not injure the Grapes, but syringing will disfigure them, but better submit to have the bloom partially washed off this year than to have no Grapes the next year. If the Grapes are nearly ripe, and the Vines not seriously infested by the red spider, the fruit may perhaps be cut before applying the remedial measures.

**CONSTRUCTING RANGE OF HOUSES (An Irish Subscriber).**—With so extensive a range for glass you should aim at more than a vinery, Peach house, and orchard house. We should have at least two vineries, or with three you might have Grapes very nearly the year round—viz., an early vinery to give fruit in May; a second vinery to come in at the close of July; and a late vinery which would afford fruit up to May—say 88 feet of early, 48 feet of second, and the same of late vinery, which will take up 184 feet. Then 86 feet of early Peach house, and 48 feet of second Peach house, and this will leave you 94 feet for orchard house. It may be that you do not wish to heat the range or reduce the heating to a minimum; in that case we should have 73 feet vinery, 96 feet Peach house, and 183 feet orchard house, but unless you have other houses the former arrangement would be infinitely better. The wall being up will be a considerable saving. The vinery or vineries we should have in the centre, and 18 feet wide; in fact, all that width, and a lean-to or with a short half-span at back if you object to a high back wall. The front we should have 5 feet 6 inches high, 8 feet of it glass, and have all the front lights to open as well as 2 feet 6 inches the whole length the upper part of the house. The depth of border you would need would be 8 feet 6 inches, and of this 9 inches should be drainage, and not less in width than half the extent of the house in width, as well as the inside. If you have trees against the walls then you will need borders the full width inside in addition to two-thirds the width of the house of outside border. We could not give an estimate of the cost, but that you may obtain by writing, stating what you require, to an horticultural builder.

**NAMES OF PLANTS (S. E. T.).**—The yellow flower is *Sedum reflexum*, the other *Drosera rotundifolia*. (D.).—*Gallium cruciatum*. (J. B. C.).—*Lisochilus speciosus*, Br. (G. B.).—1, *Philadelphus coronarius*; 2, *Castanea vesca*. The leaves are those of *Stachys lanata*. (Constant Reader).—Specimens very bad. 1, *Begonia* sp.; 4, *Veronica incana*; 5, *Gilia lutea*; 6, *Santolina* sp. (W. T.).—Apparently a species of *Ixora*. (B.).—*Agrostis* sp.? The specimen is poor. (G. B. B.).—Your plants are *Crepis virens*, and (apparently) *Anthemis inodora*. You would find a British Flora useful in such cases. (Lady King).—You were answered in the Journal for July 1st. We can only repeat what is there said; it may be *Geranium pratense*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### KETTERING POULTRY, &c., SHOW.

THIS Show was held on July 6th and 7th during the Kettering Feast, when the little town was alive with visitors, and in many respects was a great success. We would strongly advise the Committee another year to have the pens strewn with coarse sand or road grit in preference to chaff, and above all to have it done before the birds are penned. In this case it was delayed until the morning of the Show, and many of the birds having come long distances without food should have been fed with meal dough and water on the Monday evening. Nothing is so beneficial to highly-bred specimens which are called upon to undergo much fatigue and privation in journeying to the various shows as good easily-digested food and the very necessary water, with a little green meat if possible. They then return to their owners as fresh as ever, and prevent those re-cremations which frequently pass between exhibitor and Secretary when birds are knocked-up or die.

The Committee, who, we understand, are more in the Pigeon and Rabbit than poultry fancy, would do well another year to revise their schedule. The single-bird system we admire, but it should not be made to crush certain breeds. Where all colours compete together one class is not sufficient either for Dorking, Coochin, Brahma, or Game, as the less perfect colours either put in a poor appearance or go to the wall; and it is a great mistake to leave out classes for French and Spanish, these four high-class varieties being cramped into a two-prize Selling class with Polish, Malay, and all the customary variety specimens. Game Bantams, which almost always fill, had only one class; we say one class, for although there was throughout the Show a class each for cocks and hens, yet as the whole of the sub-varieties competed together in those which we have named it is substantially one. In Ducks again—only imagine! Rouen and Aylesbury and Mandarins and East Indians being compressed into one class. In the Pigeons the birds were more liberally treated, the classes being very fair, and three prizes to each class.

In *Dorkings* Mr. Burnell took both firsts with very fine birds, the cock, however, having one bad toe; the second cock was a neat Dark bird in good order. In *Cochins* the first cock was a fine Partridge, in fine trim for the time of year, with good style and nice colour, though rather high on his legs; second a good rich even-coloured Buff with good feet and comb. No 14 (Mrs. Tindal) was a very fine White, but rather yellow from the sun. This bird is one of the late Mrs. Williamson's celebrated stock, which we may mention has passed entirely into the hands of Mrs. Acton Tindal, adding a notable feature to her already fine stud. In hens first was the well-known Partridge, in nice order; second a pretty Buff. 20 (L. Wright) was a neat Partridge; 23 (Mrs. Tindal) a superb White, her comb throwing her for second honours; 23a (Harvey) a fine Buff, a little out of feather. In *Brahmas* first was a big Dark cock, rather long in leg and white in ear, otherwise good; second was one of the best Lights we know, grand in shape, style, tail, feet, and comb, but not a good white, or he would have won; a lovely-shaped young Light was very highly commended, but he is too small. In hens Mr. Lewis Wright won with a well-marked Dark hen; second a neat Light; highly commended Mrs. Peat, a nicely-shaped hen indeed; highly commended Mrs. Tindal, a superb bird but deep in moult. *Game* were very poor as a lot. First cock was a Brown Red of rich colour and in fine trim, but his tail puzzled us immensely; it was carried in an almost straight line with the back, and appeared to hang as though powerless. Second a fair Black Red. In hens the first was a good Brown Red; rest poor.

*Hamburghs* were a strong lot. In Pencil cocks first was a bird of fair colour, nice tail, and neat comb; second a fair old cock, but we should almost have gone to 47 (Pickles), good in colour, comb, and ear, though dark in tail; 53 (Tloker), a fair bird, but too bronzy in tail, and poor in head. In hens the prizes went to a couple of very good Silvers, the first better in breast; 56 was another neat Silver, not so fine in marking; 60 (Hallam) was a neat Gold. In Spangle cocks first was grand in wing and head, but not quite darkly marked enough; second a fine old Gold; highly commended a nicely-marked Silver. In hens first went to a Gold, good in colour, but though well marked too small in spangling; second was a Silver, which we preferred; very highly commended was a heavily-marked Silver. In Blacks first was a cock of rare quality, in nice trim; second a very smart bird indeed, but not so rich in shape. In hens the first excelled in colour, but was too dark in face; second a fine hen, good in head and ear, but not so rich; 84 (Foster), very rich in colour, but too pale in face.

In the Variety class first was a neat Spanish cock, good in face and comb; second a fine Gold Poland, large in crest, but not so well laced as could be wished; very highly commended

(Pickles), another, but bad in colour; very highly commended (Cutlack), a superb Crève, to which we should have given honour in hens first a superb Spanish, grand in comb, condition, and face; second a beautifully-crested Poland, but failing in lazing. Messrs. Outlook and Boothby also showed capital specimens the latter gentleman's Polish hen really deserving honours. In the Selling class first was a fair Dark Brahma, the same exhibitor winning in hens. Mrs. Pryor's pens were empty. In Game *Bantams* first was a rich-coloured cock, in nice trim second too short in head. The noticed birds were all good. Hens were very moderate. In the Variety class first was beautiful Black cock, in grand trim; second a good Silver-laced highly commended (Rev. F. Tearle), a capital White, only price at a guinea, and not claimed when we left. In hens first was beautiful Silver-laced, second a good Black, very highly commended a good Black, and the two highly-commended per excellent Whites. In *Ducks* first were fair Aylesbury, a better pair losing for want of better colour in the drake's bill; second very good *Vidua*; highly commended *Rouens* and *Mandarin*.

In *Pigeons* *Pouters* were a great feature, the White cock being one of the best we have seen in girth, symmetry, and length. The winning hen was also beautiful in shape. Mr. Harvey won both firsts with Blues, Red and Yellow winning the other first honours. In *Carriers* Mr. Yardley's hen ran away from the lot. The winning Tumbler was a neat Agate. In *Owls*, first was good foreign Blue, second and third Anglo-African Whites, both failing in beak. *Dragons* were a grand class of nineteen entries. First, Mr. Graham's grand Grizzle, about the best we ever saw and simply perfection; second and third also good. In *Jacks* first a good Yellow, second and third sound Reds. In *Fantails* first was a sweet bird in head and tail, second and third new birds also. In the Variety class a grand Mottled Trumpet was an easy first, a rich Red Priest second, and a good Yellow Barb third. In the Selling class were some good *Carriers* quickly claimed.

*Rabbits* were a great feature in the Show, and mustered strongly. The first Lop, a Black-and-white, measured 22½ by 5½, and the second, a Grey, 22½ by 5½. *Angoras* were very good indeed, the winners and Messrs. Hancock & Martin's notices pens being superb. *Himalayas* were also excellent, there being little to choose between the winners. In *Dutch*, first was a new Black-and-white, but we preferred the second, a lovely Blue third was a nice Grey, which was not level in the collar. There were several young ones which we think will make future winners. *Silver-Grey* mustered fourteen, the prizes going to the lightest *Rabbits*, all of which were very good. We were glad to see this shade of colour winning, and the dark-bodied and darker-headed animals thrown out. In the Variety class *Belgian Hares* took all the prizes, a good *Siberian* being highly commended. It struck us that many of the *Hares* smacked somewhat of the *Patagonian*.

(From another Correspondent.)

This pretty little Show was held on Tuesday, July 6th, on following day. We were pleased to find the birds were protected from the weather in a large airy tent. The management was good, the only exception being that the bottom of the *Pigeon* pens were bare. We would suggest for the consideration of this and other committees that dry sand or sawdust be used either of which would keep the birds clean and comfortable.

First on the list are *Pouters*, the classification of these being good. White cocks produce nine entries, mostly good birds, the first and second especially so. White hens, eight entries, first very good and in capital condition; second and third were not far behind. Black or Blue cocks, five entries.—All the winners were Blue. The first a grand bird, which, if we remember rightly, was first also at Thorne; second another good Blue third only fair. Black or Blue hens, only four entries.—First Mr. Harvey's grand hen. The only fault we find with this bird is that it is rather gay in crop. Second (Nottage), very good; third we did not care for. *Pouter* cock, any other colour, five entries.—First, Mr. Yardley's Red, a large and coarse bird; second better bird; third indifferent. Hen, any other colour, six entries.—First and second Mr. Pratt with two very good Yellow that fully deserved their position.

*Carrier* cocks, seven entries.—First, Mr. Miller with a stout Black in good condition. This bird only requires a little more time to make a good one. Second a good Black of great length third also a Black. *Carrier* hens, six entries.—First, Mr. Yardley's well-known Black, a grand bird; second another good Black; third only fair.

*Tumblers*, any variety.—First a very good Yellow Agate, but not in the condition we like; second a Kite belonging to the same exhibitor; third Almond, which we should have placed higher. Pen 218a (Silvester), a very good Almond that should have been in the list. Only five entries in this class.

*Owls*, any variety, five entries again.—First, fair Blue foreign second and third good White ditto. We particularly admire Mr. Allen's third-prize bird.

*Dragons*, any colour.—A large and good class, in fact the

ANY OTHER VARIETY.—1, Miss F. Rains, Kettering. 2 and 3, F. Coles, Northampton.

The Judges were for poultry Mr. R. Teesbay; Pigeons, Mr. F. Bequilliant; and Rabbits, Mr. King.

### WINTERTON POULTRY, &c., SHOW.

THE third annual Show of the Winterton Society was held on the 7th and 8th inst. in a meadow in the centre of the village. The weather was all that could be desired, and the site chosen was a suitable one. A capital marquee was provided for the poultry, and Turner's pens were used. The schedule was a pretty good one, but not such as to draw a great number of entries, considering that the Show was of two days' continuance (a mistake which we think will not be repeated), and the occurrence in this case of two other shows at the same time served to further curtail the returns in that respect, although under the circumstances the entries may be pronounced good.

*Dorkings* headed the list, and were a fair class of the Dark variety. The *Cochins* very good; first Whites, to which was awarded the section cup and also the cup for the best pen in the Show; the second and third were Buffs. *Brahmas* were a very good class in Dark, and of fair quality in Light birds. In *French* the whole were noticed; the first and second being *Crêves*, and third *Houdans*. *Game* were not of great note, except one pen of Brown Reds and one of Duckwings. In *Hamburgs* were some real good pens, but in both classes the third prizes were withheld. *Spanish* were good; the first a good cock with a wonderful hen, and second a very good cock with a moderate hen; the first-named taking the cup for the second section. *Polands* but one pen of fair good quality of the Golden variety. In single cocks the first was a Black *Hamburg*, and second *Malays*, both very good. In hens first was a *Spanish*, second *Brahma*, and third *Dorking*, and a very good class. *Bantams*, *Game*, were a large class, but only five pens were worth notice; the first *Piles*, and the rest *Black-breasted Reds*. The cup for the third section was awarded here. *Bantams* any other were a fair lot only; first and second *Blacks*, and second the old style of *Silver Sebrights*. *Barred* fowls were pretty good as regards the winners. In the Selling class the winners were *Brahmas* and *Crêve-Cœurs*. Two classes were provided for *Brahmas* of *Lincolnshire*, the *Light* poor, but *Dark* very good in all respects. *Turkeys*, *Geese*, and *Ducks* were not numerous, and but moderate in quality.

The quality of *Pigeons* stood high, although in some classes the entries were not numerous. In *Carriers* the winners were *Blacks*. In *Pouters* the first *Black*, which also won the cup for *Pigeons*; second *Blue*, as also the third. *Dragoons* were all noticed, being a grand lot; the first *Yellow*, second *Blue*, and third a *White* nestling of great promise. In *Antwerps* the first and second were *Blue*, and third *Dun*, all *Short-faces*. In *Tumblers* the first a grand *Almond* cock, second a *Yellow Agate* of grand head properties. In *Owls* a *White* was first, and *Blue* second. *Barbs* were very good, a *Black* cock placed first, and *Dun* second; the third, a *Red* hen, was not in good order, and must be cared for, or will be lost. *Turbits* very good, the first a *Blue* cock, second *Silver*, and third *Red*. In *Fantails* a *Blue* was placed first; the size, style, and carriage very grand, but not so good in tail as the second and third, which were, however, coarser birds. *Jacobins* good; the first-prize *Nun* such a bird as is rarely seen; the second, a *Yellow*, was a little faded. In the *Variety*, first was a nice *Loe Pigeon* of the spangled variety, second a *Blondinette*, and third a *Magpie*. *Red Barbs* were first in the Selling class, the second being *Magpies*.

In *Rabbits*, for which only poor provision was made, the first in bucks was a capital *Blue-smut* Lop, 22 by 4½, second a neat *Silver-Grey*, and third a *Fawn* Lop, 21 by 4½. In does a *Silver-Grey* had an easy win, this being a very good *Rabbit*, a *Lop*, 21½ by 4½; the third being *Dutch*. A class for *Belgian Hare* brought five entries of capital *Rabbits*; the otherwise best, a buck, highly commended, had a white nose, but should be good for stock purposes.

The stock entrusted to the care of the Committee was well attended to, and all were conveyed to and from the station (a distance of five miles) free of charge.

*DONKEYS*.—1, W. H. Crabtree, Levenshulme. 2, H. Pickles, Earby. 3, Simpson and Dodds, Bedale. 4, T. Sawyer, Winterton.

*COCHINS*.—*White*.—Cup and 1, W. Whitworth, Longlight. 2, W. H. Crabtree, 3, J. Smith, Lidoon. *Ac.*—1, W. H. Crabtree, Barton-on-Humber.

*BRAHMAS*.—*Light*.—1 and 2, W. H. Crabtree, 3, W. Whitby, Sheffield. 4, T. Newham, Barton-on-Humber. *Dark*.—1, W. H. Crabtree, 2, Dr. J. Holmes, Chesterfield. 3, W. H. Crabtree, 4, G. S. Pearson, Southtown, Great Yarmouth. 5, G. Thompson, South Ferryby. 6, W. J. Waters, Elham, Brigg; W. T. Millett, Farnfield, Liverpool.

*FRENCH*.—1, W. H. Crabtree, 2, Mrs. J. Wickes, Appleby. 3, G. W. Hibbert, Godley. 4, J. Grantham, W. Whitworth.

*GAME*.—*Black-breasted Red*.—1, H. B. Ayre, Winterton. Any other variety.—1 and 2, W. G. Waters, 3, Miller & Darley, Brigg. 4, O. Meggitt, Barton-on-Humber.

*HAMBURGS*.—*Gold or Silver-spangled*.—1, H. Pickles. 2, G. Holmes, Great Driffield. 3, B. Wilkinson, Alkborough, Brigg. *Gold or Silver-pencilled*.—1, H. Pickles. 2, E. Newbitt, Epworth. 3, J. Gilling, Winterton.

*SPANISH*.—Cup and 1, E. Newbitt. 2, J. Boulton, Bristol. 3, W. G. Waters, 4, J. Gilyard, Winterton.

*POLANDS*.—1, G. W. Boothby, Louth.

*ANY VARIETY*.—Cock.—1, T. A. Wright, Great Yarmouth. 2, E. Newbitt. 3, W. Sparrowhawk, Barton-on-Humber. Hen.—1, E. Newbitt. 2 and 3, Dr. J. Holmes.

*BANTAMS*.—*Game*.—Cup, 1 and 2, Mrs. E. Newbitt, Epworth. 3, W. H. Crabtree, 4, G. Holmes. *Ac.*—W. Smith. Any other variety.—1, W. G. Waters. 2, W. J. Warburton, Staleybridge. 3, W. Bygott, jun., Rye Hill, Ubley Junction. 4, Dr. Holmes.

*BARTONS*.—1, G. Robinson, North Frodingham. 2, G. Johnson, Winterton. 3, W. Sawyer. 4, W. B. Blanshard, Whiston (3).

*SELLING CLASS*.—1, W. G. Waters. 2, G. Thompson. 3, Mrs. Cross, Brigg. 4, Mrs. Cross; E. Newbitt.

*LOCAL CLASS*.—*Light Brahmas*.—Cup and 1, J. G. Constable, Brigg. 2, A. Bray, Winterton. *LOCAL CLASS*.—*Dark Brahmas*.—Cup and 1, Mrs. J. Wells, Winterton. 2, E. J. Wells. 3, Mrs. Cross; — *Hesseltine*.

*TURKEYS*.—1, W. Sawyer. 2, T. Parkinson, Winterton. *GESE*.—1 and 2, F. Walker, Winterton. *DUCKS*.—1, W. Bygott, jun. 2 and 3, W. Sparrowhawk.

### FIGURES.

*CARRIERS*.—Cock or Hen.—1, H. Yardley, Birmingham. 2, J. E. Crofts, Blyth, Walslop. *POUTERS*.—Cock or Hen.—Cup, 1, and 2, H. Yardley & Thornton, Hull. 3, J. E. Crofts. 4, H. Yardley.

*DRAAGONS*.—Cock or Hen.—1 and 2, R. Woods, Mansfield. 3, E. A. Thornton, Hull. Whole class highly commended. *ANTWERPS*.—Cock or Hen.—1 and 2, H. Holroyd, Hull. 3, H. Yardley and Thornton. 4, H. Yardley. 5, F. Bray, Barton-on-Humber.

*TUMBLERS*.—Cock or Hen.—1, H. Yardley. 2, J. E. Crofts. 3, A. W. Canty, Barton-on-Humber. *OWLS*.—Cock or Hen.—1, H. Yardley. 2, G. G. Kirk, Barton-on-Humber.

*BARBS*.—Cock or Hen.—1, H. Yardley. 2, J. E. Crofts. 3, W. J. Warburton, Staleybridge. 4, C. Woot, Hull. 5, H. Yardley & Thornton. 6, S. Stables, Winterton.

*TURKEYS*.—Cock or Hen.—1, H. Yardley & Thornton. 2, H. Yardley. 3, J. E. Crofts. 4, G. J. Warburton; H. Yardley & Thornton; 5, G. Bartle, Brigg. 6, H. Yardley & Thornton.

*SPANISH*.—Cock or Hen.—1, J. Warburton. 2 and 3, J. Walker, Newark. 4 and 5, J. F. Lovelidge, Newark. *JACOBINS*.—Cock or Hen.—1, J. E. Crofts. 2, Canty & Kirk. 3, A. S. Johnson, Scawby, Brigg.

*NUNS*.—Cock or Hen.—1, J. W. Warburton. 2, J. E. Crofts. 3, H. Yardley. *ANY VARIETY*.—Cock or Hen.—1, J. E. Crofts. 2, H. Yardley. 3, A. Canty, Barton-on-Humber.

*SELLING CLASS*.—1, C. Woot. 2, J. E. Crofts. 3, A. Canty. 4, H. Yardley & Thornton. *RABBITS*.

*ANY VARIETY*.—Buck.—1, G. Conyers, Hull. 2, A. Canty. 3, A. Hudson, Hull. Doe.—2, F. & E. J. Fall, Blackburn. 3, A. Hudson. *BEELIAN HARE*.—Buck or Doe.—1, 2, and 3, B. Greaves, Cleethorpes. 4, M. C. Bray, Winterton.

JUDGES.—Mr. E. Hutton, Pudsey; Mr. F. Sales, Crowle.

### BRENTWOOD SHOW OF POULTRY.

THIS Show, as in comparison to that held last year at Stratford, was a great success. The management was different, and it was quite distinct from the general show close by. Mr. Tegemeier was Judge, and except in a few cases we agree with his awards. We hope that another year the Committee will display a little more practical knowledge of their subject as exemplified in the schedule, which was poor and badly drawn. There were four cups: one for *Dorkings*, which brought five entries; *Cochins* bringing six entries; *Game* bringing eleven entries; and *Brahmas*. Now, why these classes should be favoured in this way we do not know, more especially as the same entry was charged throughout. Again, the classes were lumped together in a most unwise manner. *Cochins* should be divided; *Hamburgs* want at the very least two classes, and should have four or five to give any satisfaction; *French* should have classes, also *Polands*; and the *Duck* class sadly needs division, or the beautiful little *Mandarin*, &c., are hardly to be expected. The pens and feeding were commendable; but the entries small, mustering only 110 pens, although in almost every class there were birds of the very highest type.

In *Dorkings* Mr. Parlett secured cup and second with two fine pairs, which are old friends with us. They were good in feet, size, and condition. The Whites could stand no chance, although very fair birds. Mr. Henry Lingwood seems out of form this season. In *Spanish* the hens were better than the cocks, the latter beginning to look anything but "aristocrats." In *Game* Mr. S. Mathew showed three lovely pens. The *Red* class contained four grand pens, the best being Mr. Mathew's commended *Black Reds*; but the Judge preferred larger birds belonging to the same owner. These were *Brown Reds* in grand trim indeed, good in eye, feet, and style. Second contained we think the Croydon winner, a fine strapping bird he is; but the hen was not so good. The commended *Brown Reds* (*Martins*) were a lovely colour, but too square in tail. In *Duckwings*, first, which took the cup also, were a lovely-coloured pair of *Duckwings* in nice order, but not so shapely as the *Reds*. The rest were only moderate. *Cochins*, a poor lot, were headed by a well-known pen of *Buffs*, the cock being the same which was disqualified at Croydon. This pen has had a pretty fair spell of exhibiting lately and needs rest. The rest were all poor. *Dark Brahmas* were a larger class, first going to Mr. Lingwood's Croydon cup cock, with a moderate hen; the second being very moderate, in fact with one exception a pen we would have placed second. The whole class remaining was poor. *Lights* were a much better lot, the winning pens being first-rate, good in body, colour, comb, and feather. The commended pens each contained good individual specimens. The *Hamburgs*, any variety, were eleven pens; first were *Gold-pencils*, the hen a

gem, but the cock fair only; second were Silver-spangles, cock first-rate and in fine trim, the hen only moderate. Pen 62 (Tucker) were nice Gold-spangles; and 63 (Harris) Silver-spangles. In Game *Bantams* first were richly-coloured stylish little Piles; they would be better with less tail. This applies also to the second Black Reds, which were stylish, but heavy in the caudal appendage. In the fancy Bantam class Blacks of rare quality were first and fair Japanese second. It is something novel to see Blacks beat Silver Sebrights such as Mr. Leno's crack pen, but we can scarcely understand Japanese thrashing them. In the Variety class first and second were Crêves and Houdans, the latter with Crêve combs. Mr. Hewitt insists upon the Houdan comb on the Houdan. Which is it to be? The highly commended pair were Black Malays, which we much admired. *Turkeys* and *Geese* were fair classes only.

**DORKINGS**.—1 and 2, F. Parlett, Gallewood, Chelmsford. *she*. — Everett & Stratford.

**SPANISH**.—1. — Chilcott. 2. — Waller. *he*. — Thomas.

**GAME**.—Black-breasted and other Reds. — 1. S. Matthew, Stowmarket. 2. J. John, Kham. *c*. S. Matthew; — Martin. *Any other colour*. — 1. — Matthew. 2. — Finch.

**COCHINS**.—1. — Harris. 2. E. Lingwood.

**BRAHMAS**.—Dark. — 1. H. Lingwood. 2. J. H.M. *he*. Rev. G. W. Joyce; J. R. Way. *c*. M. Holland. *Light*. — 1. H. Lingwood. 2. — Haines. *he*. H. Lingwood; — Haines. *c*. — Kennis; — Hawkins; H. Downett, Pleshy.

**HAMBURGERS**.—1. J. Jackson. 2. — Long. *he*. — Harris. *c*. — Schreiber; W. K. Tucker, Ipswich.

**BANTAMS**.—*Geese*. — 1. E. W. Southwood. 2. W. Adams. *he*. G. Garrod. *Any other variety*. — 1. — Francis. 2. — Allen. *c*. M. Leno, Dunstable.

**ANY OTHER**.—Hazard. — 1 and 2, W. Dring, Faversham. *he*. — Harris. *c*. J. Jackson; — Brown.

**TURKIS**.—1. Mrs. Mayhew. 2. — Everett. *he*. W. Tippler. *c*. — Gansell.

**DUCKS**.—1. — Small. 2. — W. Tippler. *he*. — Fitcherbert.

**GOOSE**. — 1. — Everett. 2. — Harris. *he*. Mrs. Barnard.

**SELLING CLASS**. — 1 and 2, Dr. Campbell, Brentwood. *she*. — Norris. *he*. Dr. Campbell; — Simpson.

### FULFORD (YORK) SHOW.

The annual Show of poultry and Cage Birds took place on the 15th inst. The poultry, &c., were arranged in the open field in pens belonging to the Society, which we, however, recommend to be changed for some of a more modern kind.

*Spanish* were first, and only poor; but the *Dorkings* were fit to grace the best of shows. *Brahmas*, *Cochins*, and *Game* only of a poor quality, with the exception of the first-prize pens. *Hamburgs* had but two classes, and in that for Golden Pencils won both prizes; a pen of Spangles highly commended were good, but the cock's breast was very much laced. *Silvers* were poor. In chickens of Any breed the first were three very promising Black Spanish cockerels, and second a pen of Light Brahmas of fair quality, a pen of Brown Red Game—too young however—being very highly commended. In *Bantams* first were Black, and second Silver Sebrights. *Turkeys* were very good, but the pens were too small. In *Ducks* a pretty pair of Teal were first, and Aylesburys second.

*Pigeons* were well shown, the best four Carriers taking first, and a mixed lot second, two of the latter being also Carriers, a Priest, and an Owl.

In *Rabbits*, as might be expected, were good representatives. In Lops a very large Fawn doe was first, a Fawn-and-white buck second, and a Black doe third. In the Variety class first was a capital Angora, second a handsome Silver-Grey, and very highly commended a Belgian hare, the rest of the class being good.

The great feature of the Show was the *Cage Birds*, which were shown in the floral tent, and a nice display they were, fifty-six in all. In the Clear Yellow of 1876 the winners were nice promising Norwich, which were putting-out here and there a stray shoot of high colour. No. 1 was left out being ticked, and No. 4 as presenting the appearance of too rapid a moult in one particular place. In Buffs were also some nice specimens, and all were noticed. The rest of the classes were for birds of any age. In Evenly-marked Buff or Yellow the first was a good Yellow four-pointed bird, rather heavy in eye marks; second also Yellow, was not perfectly even. No. 16 (Petty & Cuss) was disqualified, the secondaries of the left wing having been coloured to match the other, and we must admit it looked well; but we would advise that it be shown in the Extra stock as a specimen of the artistic skill of the exhibitor. Cinnamons won both prizes in the Variety class, a young Lizard with a slightly irregular cap being very highly commended. The Crested were a fair class, the first a Yellow with very even crest, though not large. Cage of four Canaries were mostly young birds of this year, and were not of high merit. Goldfinches were good, very good indeed for the time of year. In Goldfinch Males a good Mealy four-pointed bird was placed first, a Dark Mule of very high colour being second; two other highly commended were light variegated. Bullfinches were very good and in fine bloom, and Linnets showed great care and nursing, the two winners being in faultless condition and feather. In Extra stock were two of the circular cages attached to musical boxes, the birds, which were powerful-built Greenfinches, plying their calling very actively.

**SPANISH**.—1. J. T. Hingston, York. 2. T. P. Carver, Boroughbridge. *he*. G. Founder.

**DORKINGS**.—1. J. T. Hingston, York. 2. J. Newall, York. *he*. G. Founder, Kirbymoorside. *c*. J. Robshaw, Whitley.

**BRAHMAS**.—1 and 2, T. P. Carver.

**COCHIN-CHINA**.—1. Messrs. Umpleby. 2. J. North, Fartown. *he*. Lowley and England, Boroughbridge. *c*. A. S. Perfect, Fulford.

**GAME**.—1. G. Carter, Beale. 2. J. Robshaw, Whitley. *he*. G. Aston, York.

**HAMBURGERS**.—Golden-penciled and Penciled. — 1 and 2, T. P. Carver. 2. J. Newall. *Silver-spangled or Penciled*. — 1. J. Robshaw. 2. J. Newall.

**BANTAMS**.—1. G. Founder. 2. T. P. Carver. *he*. J. Robshaw.

**ANY BANTAM**.—*Chickens*. — 1. J. T. Hingston. 2. T. P. Carver. *he*. G. Carter, Beale. *c*. W. Linton.

**BANTAMS**.—1 and 2, T. P. Carver. *he*. J. T. Hingston.

**SELLING CLASS**.—1. G. Founder. 2. J. Robshaw. *c*. G. Carter; G. Hesthington, York.

**GREENS**.—1. R. Garbutt, Ampleforth. 2. A. S. Perfect. *he*. — Balderson, Bellby.

**TURKEYS**.—1. Miss Kirk, Ripon. 2. Miss Hart, Dunnington. *he*. A. S. Perfect.

**DUCKS**.—1 and 2, T. P. Carver.

**PIGEONS**.—1. G. Badler, Boroughbridge. 2. Messrs. Umpleby. *he*. C. Auton.

*c*. O. E. Dixon, York; M. Mawdsley, York; C. Auton.

### CAGE BIRDS.

**CANARIES**.—Clear Yellow, bred in 1876. — 1. T. Humphrey, York. 2. Harland and Son, York. *he*. J. E. Barr, York; W. Triffitt, York. *Clear Bay*, bred in 1876. — 1. Petty & Cuss, York. 2. Harland & Son. *he*. J. Baines, York; R. J. Smith, York; T. Humphrey. *Brown-marked Bay or Yellow*. — 1. Harland and Son. 2. J. Baines, York. *c*. M. Baines. *Any other variety*. — 1. W. H. Bachelors, Whitley. 2. Petty & Cuss. *he*. J. E. Barr, York; R. Pearson, Whitley; Harland and Son. *Crested*. — 1. J. Baines. 2. *he*. R. J. Smith. *c*. M. Baines; Petty and Cuss; W. Triffitt. *Cage of Four*. — 1. Petty & Cuss. 2. R. J. Smith. *he*. J. Baines; Harland & Son. *c*. G. H. Campbell, York.

**GOLDEN PENCILS**. — 1. Harland & Son. 2. T. Humphrey. *he*. J. Baines.

**GOLDEN PENCILS**. — 1. J. Boudidge, York. 2. J. Baines. *he*. T. Humphrey.

**BULLFINCHES**. — 1. Harland & Son. 2. T. Bramley, York. *he*. M. Pearson; J. Baines; G. Hilton, York.

**LINNETS**. — 1. R. Pearson, Whitley. 2. J. Gillis, York. *he*. W. H. Bachelors, Whitley; R. J. Smith; T. Humphrey.

### RABBITS.

**LOP-EARED**. — 1. T. Myton, York. 2. H. Myton, York.

**ANY OTHER VARIETY**. — 1. W. Galsby, York. 2. H. Myton. *he*. G. T. Linfoot, York. *c*. B. Empster; W. Myton; T. Wansford; N. Saggitt, York.

**GOVERNORS**. — 1. W. H. Dempster, Fulford. 2. S. Dawson. *he*. Master Thompson, Fulford.

**JUDGES**. — Mr. E. Hutton, Pudsey.

### SNAITH POULTRY, &c., SHOW.

The twenty-first annual meeting of the Snaith Agricultural Society was held on July 8th in the beautiful grounds kindly lent by Mr. J. H. Rooket. For the accommodation of the poultry and Pigeons a spacious marquee was provided, and Turner's pens completed the arrangement, these being well placed for the purpose. The list was a great improvement upon any previous one offered by the Society, and the results fully bore out the wisdom of this step, the entries being in all respects satisfactory.

*Game* fowl were not good, if we except the winners in the Variety class, which were Duckwings, while *Spanish* were very good, and for the time of year in nice feather. In *Cochins* the first were Whites, the hen a grand bird; the second Buffs, the hen also good, but both cocks poor; the third a fair pen of Fartbridge, though the cock had too much hook. Both classes of Spangle *Hamburgs* were very good, and the Pencils as far as regards the winners, the remainder being poor. Both White and Coloured *Dorkings* were good; in the latter class Silver-Grey were second, Dark Greys taking the other prizes. Of Black *Hamburgs* there were but three pens, but these were very good. *Bantams* were well provided for but badly classed, and a revision of this section would be of great use. A class for Duckwing *Game* was first with three pens of fair quality; next was one for Any other variety of *Game Bantams*, in which a smart pen of Piles were first, Brown Reds second, and Piles third. In cock and hen not *Game* the winners were Black and very good. After these came Black Red cocks, in which the first was a grand stylish bird; the second had a better tail, but lost in colour, limb, and carriage, and was minus one sickle; the third was good, but the wings were a little drooping. Hens of that variety were the best of the Bantam classes, the first going to a most perfect pullet, and second to a hen perfect in colour and in nice order, two other excellent hens receiving high commendations; one of these, a very old bird, had such a head as is rarely seen. Of *Brahmas* there were only four pens, the first only being good. Cock and hen of Any other variety produced Silver and Gold Poland and Black *Cochins*, the Polands being very fine. In both Selling classes Crêve-Cœurs were first, *Spanish*, Black *Bantams*, and *Game* dividing the other prizes. In *Turkeys* the best were Blacks, and in *Geese* Grey; the *Ducks*, which were Romans, being good, but out of feather. Guinea Fowls were one of the best classes we have seen of late. The whole class was highly commended.

*Pigeons* were a very even lot. Carriers were divided into two classes. In cocks the first was Dun and second Black, both good. In hens the first was Black, and second Dun; a grand Black was highly commended. In Tumblers the winners were Almonds, the first a cock and second hen, the latter good in head properties, but only moderate in colour. Jacobins were a grand class, every pen being noticed; the first and second Red. Posters also all noticed; the first Blue, but not in the condition we have seen him; second Black; and a third was awarded to a capital White. Turbits were very good. The first-prize Red was about perfect, the second was a Shell-crowned Silver, and all the rest noticed. Fantails were very good, but in Owls only the winners were of any use, the first Silver and second Blue.



Barbs were a good class. A Black cock of good properties was first; and second a Dun very short in beak, but not equal in eye to the highly-commended Black. Magpies were very good; both the winners Reds. In Dragons the first was a most perfect Blue cock, and second a Red, a capital Yellow being also noticed. Antwerps were a good class, the first the style of bird which has been long looked for—Silver, Dun, and Short-faced in reality; the second was a medium-faced Red-chequer hen; a good Short-faced Red-chequer was very highly commended. In Any breed not before named the first were a pair of Pigmy Pouters, second Nuns; both very good. Two Selling classes wound up this section, some of the pens being very cheap lots.

Of Rabbits there were not many entries, the prizes being poor, but the winners were well worthy of better competition.

**Cage Birds** were shown in the floral tent, and looked well among the flowers. The first class was for "English Canary," whatever that may be. A very good Variegated high-coloured Norwich was placed first, the second going to a good four-pointed Yorkshire, a very well-made Dark Variegated Yorkshire being very highly commended, other commoner-coloured birds coming in for high commendations. Belgians were very poor, Bullfinches and Goldfinches good for the time of year, and the Linnets in nice order. In the Variety class the first was a capital King Parrot, and second a five-pointed Goldfinch Mule, a Snow Bunting in nice order being very highly commended. The whole Show was very well managed, and we congratulate the Secretary upon the success of this section particularly.

**GAME**—Black or other Red.—1, J. B. Hepworth, Haggins Carr, Hatfield. 2, Julian, Beverley. 3, F. Sales, Grouse. Any other variety.—1, F. Sales. 2, J. A. & H. Staveley, Tibthorpe, Driffield. 3, M. White, Stapleton Park. **SPANIELS**—Black.—1 and 2, H. Beldon, Gostotock, Singley. 3, J. Powell. **COCHIN-CHINA**—1, H. Beldon. 2, J. White. 3, W. P. Fletcher, Ackworth. **HE**, T. Addey, Askern; —Bleasby, Hambleton. **C**, —Tarton, Ackworth; —Bleasby.

**HAMBOURGERS**—Silver-spangled.—1 and 2, H. Beldon. 3, Walls & Sherwin. **GOLDEN-SPANGLED**—1 and 2, H. Beldon. 3, J. & W. Kellitt, Ouse. **HAMBOURGERS**—Golden-pencilled.—1 and 2, H. Beldon. 3, W. Harrell, Hensale. **SILVER-PENCILLED**—1 and 2, H. Beldon. 3, W. Harrell. **HAMBOURGERS**—Black.—1 and 2, H. Beldon. 3, J. & W. Kellitt. **DORKINGS**—White.—1 and 2, W. Morrill, Goolia. 3, W. H. King, Mansfield. **ROCHDALE** Coloured.—1 and 2, W. Morrill. 3, W. Rowe. 4, W. H. King. **HE**, J. H. Rookett.

**BANTAMS**—Game Duckwing.—1, C. & F. Newbitt. 2, W. F. Entwistle, Westfield Wyke, Bradford. 3, E. Dawson, Epworth. Any other variety Game Duckwing.—1, E. Dawson. 2, W. F. Entwistle. 3, F. Holt. Any variety not Game.—1, Walls & Sherwin. 2, H. Beldon. 3, T. O. Newbitt. **BRAMBLING**—1, W. Whitely, Sheffield. 2, Mrs. B. Frank. 3, J. Vollans, Selby. **ANY OTHER VARIETY**—1 and 2, H. Beldon. 3, Mrs. B. Frank. **GAME BANTAMS**—Black Red.—Cock.—1, W. F. Entwistle. 2, A. Sugden, Cleckheaton. 3, Master E. D. E. Elmtree, Epworth. **HE**, Walls & Sherwin; E. Dawson. **HE**, 1 and 2, W. F. Entwistle. 3, A. Sugden. **HE**, J. Croxland, jun.; W. Ewbank, Carlton; W. W. Hudson, Epworth. **C**, Mrs. Dale; —Jabes, Clifton; T. Sales.

**ANY BREED**—Cock.—1, H. Beldon. 2, F. Sales. 3, J. B. Hepworth. **HE**, Mrs. B. Frank; T. Addey.

**SELLING CLASS**—Not to exceed 4s.—1, T. Addey. 2, J. Powell, Bradford. 3, Bruch & Boulter. **C**, W. Morrill; H. Beldon. Not to exceed 5s.—1, Walls & Sherwin. 2, —Jabes. 3, T. Addey. **TURKEYS**—1, Mrs. J. Braithwaite, Hadfield. 2 and 3, J. H. Rookett. 3, Mrs. Lambert, Sherwood.

**GENE**—1, J. White, Netherton. 2, J. B. Hepworth. 3, C. Young. **DUCKS**—1, B. Parkinson, Dewsbury. 2, J. White. 3, C. Young. **GOOSE**—1, J. H. Rookett. 2, G. Cooke, jun. 3, C. Young.

#### PIGEONS.

**CARRIERS**—Cock.—1 and 2, E. Horner, Harewood. **HE**, J. E. Crofts, Blyth, Workop. **HE**, Yardley, Birmingham. **HE**, —1, J. E. Crofts. 2, E. Horner. **HE**, H. Yardley; E. Horner.

**TUMBLERS**—Cock or Hen.—1, H. Yardley. 2, E. Horner. **HE**, Walls & Sherwin.

**JACOBINS**—1, T. Holt. 2, E. Horner. **HE**, J. E. Crofts; T. Holt; E. Horner. **C**, Walls & Sherwin; J. Shillock, Oulton, Hossingham.

**POUTERS**—1, J. E. Crofts. 2, Miss F. Seanoor. 3, A. Spencer, Driffield. Whole class highly commended.

**TURKEYS**—1, Miss F. Seanoor. 2, J. E. Crofts. **HE**, W. Fowler; E. Horner (3). **FANTAILS**—1, F. Liveridge, Newark. 2, J. Walker, Newark. **HE**, J. Walker; J. F. Liveridge; W. Fowler; E. Horner.

**OWLS**—1, Miss F. Seanoor. 2, H. Yardley. **C**, F. Tomlinson.

**BAKES**—1, E. Horner. 2, J. E. Crofts. **HE**, W. Fowler.

**MAGPIES**—1, E. Horner. 2, J. E. Crofts. **HE**, F. Tomlinson; Miss F. Seanoor.

**DRAGONS**—1 and 2, H. Woods, Mansfield. 3 and 4, Walls & Sherwin.

**ANTWERPS**—1 and 2, W. F. Entwistle. 3, Miss F. Seanoor. **HE**, J. Croxland, jun. **C**, J. Croxland, jun. (3); E. Horner.

**ANY OTHER VARIETY**—1, Miss F. Seanoor. 2, E. Horner. **HE**, H. Yardley. **C**, Walls & Sherwin.

**SELLING CLASS**—Pair.—Price not to exceed 4s.—1, H. Yardley. 2, J. E. Crofts. **HE**, E. Horner. **C**, J. Croxland, jun.; Walls & Sherwin. **Cock or Hen**.

—Price not to exceed 2s.—1, E. Horner. 2, A. Spencer. **C**, W. Fowler.

#### FANCY BIRDS.

**CANARIES**—English.—1, E. Lesson, Middlesbrough. 2, T. Ballance. **HE**, W. Taker, Goolia; G. Morris, Todmorden. **HE**, J. Meggit, Snaith; W. Gravill, Thorne; W. Cawthorne, Cowick; J. Widdop, Snaith; J. Wright, Snaith.

**Belgian or Foreign**—1, Master H. Buck, Goolia. 2, T. Ballance.

**BULLFINCH**—1, E. Lesson. 2, J. W. Walker. **C**, —Mitchell, Goudall.

**GOLDFINCH**—1, A. Ross, Selby. 2, J. W. Walker. **HE**, E. Lesson. **C**, G. Morley, Barlow.

**LINNET**—1, E. Lesson. 2, J. Coultas, Snaith. **HE**, H. Mitchell, Goudall. **C**, J. W. Walker.

**ANY VARIETY**—1, W. Clarke (King Parrot). 2, G. Trimmingham, Wormley Hill. **HE**, W. Clarke (King Parrot). **HE**, E. Nelson, Camblesforth; T. Ballance.

#### RABBITS.

**LOP-EARED**—Buck.—1, J. M. Mander, Wakefield. **Doe**—1, J. M. Mander.

**ANY OTHER VARIETY**—1 and 2, J. Hallas.

**JUDGES**—Mr. W. Cannan, Bradford; Mr. G. Hutton, Pudsey, Leeds.

**THE ROCHDALE AGRICULTURAL SHOW**, including Poultry, Pigeons, &c., is announced to be held on August 18th in the grounds of C. M. Royd, Esq. There are already, we understand,

a considerable number of entries, and a good exhibition is anticipated.

#### JACOBINS.

For many years Jacobins have been as far beneath the standard of the old fanciers as either Trumpeters or Owls. What "WILKINS RACON" so happily terms the "Baldhead style" has been in the ascendant—a poor thing, with an apology for a hood on the back of its head, or rather on the upper end of its neck, and then laid flat, and if it did not lie flat enough it was assisted by cutting away the feathers beneath. This made the bird look so like a Baldpate that at a short distance I have actually mistaken the one for the other in a badly lighted loft. Then they have the mane—one of the greatest faults a Jacobin could have; birds with it look as if the feathers on each side of the neck had been blown aside and remained so, with the so-called mane running up between those holes. This mane had also another bad effect, as of course it runs up and joins the hood in a point, and so causing an angular appearance in the hood which has again to be touched up to make it circular. The birds were beside coarse in head and beak, and large in body, with thick shoulders, so that many could not be handled easily unless both hands were used. They were also short in flights and tail, and of course short in the feathers of the hood and chain as well. This is one of the greatest faults a Jacobin can have.

But all these defects seem to have been overlooked, or rather turned into beauties, provided the bird had pearl eyes, as if this was the chief property of a Jacobin. This eye is no doubt desirable, and adds to the beauty of a bird if fine in other properties, but ought not for a moment to come into competition with fine head, hood, and chain, thin shoulders, and length of feather; obtain these, and then the proper eye will follow. It will be much easier to secure than the other points.

The best specimens of the old Jacobin were very slim in girth, with long flights and tails, and fine heads and beaks, and the feathers of a soft silky texture all over. Birds of this style had the hood and chain much better developed than in the modern show Jacobin. The hood was upon the head and thrown well forward, so that it really formed a hood. I have seen a Red Jacobin so good in this respect that when looked at in a side or profile view only her back was visible. She could not be flown until part of her hood opposite each eye was out away in order that she might see her way. Of course even then such birds were not common, but this was not wanted. Such birds had no mane—an abomination, but of course it came; in fact was too easy to obtain. It looks as if the new school had decided to make it a property, as well as the flat hood. Instead of the mane the feathers round the back of the head were nicely divided all round, and so forming the hood into the proper circular shape.

How the show Jacobins of the present day have come to be believed in can only be accounted for by the fact that fanciers for many years have not had it in their power to see many of the best style of birds, or, if they saw them, were told by those who professed to be judges that they were not show birds, and therefore not to be thought of a second time. But the tide will turn, and has indeed shown signs of so doing from what I have observed at shows within the last year or two. That this will continue I fully believe, as every experienced thinking fancier will agree with me in saying that such a bird as the old Jacobin is much more difficult to breed than the other, and much more preferable in every respect when bred.

The great distinction is, the old Jacobin had a genuine hood and wore it. The modern bird has a poor hood thrown down to the back of the neck as if they were ashamed of it, or perhaps to give a better view of their faces—not so pretty certainly as to court inspection in such a barefaced manner.

I know that I shall have a host of Jacobin fanciers down upon me for such heresy as they will deem it; but this I do not mind, I am sure there are yet a few fanciers in the flesh who recollect such birds as I describe, and who could if they chose bear me out in all I have said. As to colour, I think Reds have been the best, Whites are pretty, but are always short in the feathers of the hood and chain.—G. UZZ.

#### BELGIAN CANARIES.—No. 2.

In continuing my remarks respecting Belgian Canaries I might enumerate instances where birds of exceptional merit have been exhibited—one in particular, a noted Buff cock, well remembered by some of the Belgian fancy as having been shown in the youthful days of the Crystal Palace bird show. If I mistake not the bird was exhibited three or four years in succession, the last time at the Palace Show being in the year 1863, when the bird had attained the age of five years. On each occasion the bird was awarded first honours. The repetition of the performance year after year, and the age of the bird (for Belgian Canaries rarely live to the age of five years as exhibition birds), may be considered a very exceptional instance, and worth recording. The famous Buff cock was the property



of a gentleman in the city of Durham, who also prided himself in exhibiting (about the same period) some exceedingly fine specimens of the Goldfinch and Canary Mules.

Sixteen or eighteen years ago All-England Bird Shows were not known much of, but still at the earliest of them the Belgian Canary always held a prominent position; but of late years the Norwich Canary having come so much into favour, and being generally cheaper than Belgian birds, breeders of the latter kind have become few and far between.

Most of the choicest Belgian Canaries are annually imported by dealers and others into this country from Belgium. The high prices asked place them beyond the reach of most fanciers. The consequence is they are more scarce than other kinds, are less robust in constitution, and even when some enthusiastic speculator with "Belgian on the brain" loosens his purse strings and sets himself up with a pair of high-class birds, ten to one he may at the end of the breeding season have nothing to gratify him beyond a solitary specimen to recoup him for his outlay, and he may think himself fortunate if he succeeds in nursing the old or parent birds through the moulting sickness.

The expense and trouble of breeding and rearing is a drawback to the Belgian fancy, but I have always considered that there is more credit to the fancier who can breed, exhibit, and win, than to those who have to purchase stock year after year for exhibition purposes.

The best breeders in Belgium promote principally the breeding of clear birds, not favouring so much those marked or variegated, which are produced through crossing-in with dark-feathered birds of inferior blood. It is only occasionally that even-marked or variegated birds are found to possess the essential Belgian points which characterise clear birds. Not so, however, with those dubbed or known as ticked Belgians, many of which are equally as good in points as clear birds; in fact, the ticked birds are invariably bred from clear stock. As with Norwich birds, ticked or marked specimens will now and then crop up; but in breeding Norwich birds the practice of crossing-in with the green is very common. It is done chiefly for upholding colour.

Were it not that at many shows the classes for Belgian birds are much less patronised than other kinds there would, as for the Norwich breeds, be six classes wherein the birds could be entered—viz., two for clear, two for ticked, and two for even-marked. In some instances the clear and ticked classes are combined; and in other cases, where committees have to "cut according to the cloth" the Belgian birds are included in one class—thus, "For the best Belgian bird."

No intending bird-breeder should commence the Belgian fancy without having made himself master of the ins and outs of the practical management of other kinds of Canaries. Having so fortified himself he will be more competent to manage them. Belgian birds, being of a delicate breed, should not be handled more than is absolutely necessary—such, for instance, as clipping their claws, which should not be allowed to grow into a sickle shape, and also for otherwise keeping them from becoming crippled through being clog-footed. The compartments or cages in which they should be kept should be of good size. Belgian Canaries are very easily taught to run from one cage to another by the aid of a small wand or cane, which should be held over their heads, ever directing them to the doorplace through which it is intended they should make their exit. Such lessons should, if possible, be taught them during their youth, and always during the daytime.

Yellow Belgian birds generally are more racy in appearance than Buff birds, but they are apt to be a little more faulty; for although possessing smaller heads, thinner necks, and being better braced-up in feathers, still they show more hollowness betwixt the shoulders, and are often disfigured with tails inclined to project outwards instead of dropping in close proximity to the perch, and the half-circle being continued from the shoulders down the back to the end of the tail. I look at the above defect as a grave one in a Belgian bird, and the heavy shoulders somewhat lose effect unless thorough Belgian position and form predominate. The mere fact of a heavy-backed bird balancing itself upon its stilts is not good enough for the eyes of a thoroughly qualified judge of Belgians.—Geo. J. BARNABY.

### THE CUCKOO.

WITH regard to "our friend the Cuckoo," without questioning his friendship or utility, allow me to inform you and your readers who are desirous of information on the subject that he does eat birds' eggs; that whilst birds' eggs are to be found they are his main food; that as these become scarce he takes to less dainty diet; that I have when salad, fond of birds'-nesting, found him more than once in the act of eating the eggs; and that he is not over-particular as to their freshness, having no objection to the chickens in them. It is a curious fact that the female Cuckoo does not eat the eggs from the nest in which she deposits her own. I never found more than one Cuckoo's egg in a nest with other eggs, but I once found a female Cuckoo dead upon

the nest in which she had deposited her own egg, having crept into a faggot for the purpose from which she could not return.

While on natural history, I may just mention that I have seen it stated with authority that Starlings do not eat fruit. I have known a large Cherry tree with at least a hundredweight of Cherries upon it, cleared in a single morning before I had taken my breakfast by flocks of Starlings. They attack the Cherry trees in countless thousands for their fruit.—J. GASS, M.R.C.S.E.

### DARI.

A QUESTION was asked a week or two ago by one of your correspondents, What is dari, and where can it be procured? I have anxiously looked for a reply, but all I have seen—i.e., Mr. Elgar's letter, only tells as to its value and effect. Will someone say where it can be bought? No corn-chandler about here knows anything of it.—H. G. W.

[This is Indian millet, and ought to be procurable of any corn merchant.]

### BEES IN IRELAND.

I, in compliance with request from "B. & W." in your last week's number, forward a report of my bees for this season up to 1st July, and you will see that word for word it agrees with "B. & W.'s" experience. I may be permitted to say that anything signed with the above initials I have a high appreciation for, as the matter comes from an experienced apiarian, at least so I judge, without in the least knowing who "B. & W." may be.

#### REPORT OF BEES.

Locality, Co. Wicklow.

Pasturage, grazing land, with abundance of white clover and splendid lime trees.

Stocks, all unusually strong in ten frame hives.

Weather, cold and wet during May and June, with bright days at intervals.

Honey, not an ounce in the supers, and hives as a rule light. By same date last year I had over 100 lbs. weight in supers, and hives all full.

I find that an early and dry summer is the best for honey-gathering, as although the fields are now white with clover, the bees either do not gather it with the same industry, or else it is not so plentiful in showery weather as during a long spell of hot dry weather.—E. WALPOLE, JUN.

### THE BRITISH BEE-KEEPERS' ASSOCIATION

Will hold their second great Exhibition of bees and their produce, hives, and bee furniture, and honey fair, at the Crystal Palace, Sept. 21st, 22nd, and 23rd, 1875. The schedule is comprehensive and the prizes are liberal. There are classes for hives, bees, honey, cottagers, comestibles, &c.

HONEY FAIR.—In addition to the prize exhibition, a distinct counter will be appropriated for the exhibition and sale of honey in comb and in glasses, and in this department sales will be permitted and goods delivered at all times during the Show. The Association will provide salesmen. All money must be paid through the hands of the clerk in attendance, and will be afterwards accounted for, less 1d. in each shilling for commission. Every exhibit at the sale counter must have distinctly marked on it the weight and the price, which must include the package which contains it. The Association will not undertake to break bulk.

No exhibit entered for competition will be allowed to be removed until the close of the Show.

Every intending exhibitor must register his name with a fee of one shilling (which shall be the entry-fee for one exhibit in any class) by September 1st; any additional number of entries may be afterwards made on or before September 15th on payment of an additional fee of one shilling each. The amount of counter space that will be required for the exhibits must also be stated.

Each exhibitor and member may have a ticket of free entry to the Show on application to the Hon. Sec. prior thereto. Donations in aid of the prize fund will be thankfully received.—JOHN HURTER, Hon. Sec., Eaton Biss, Ealing, Middlesex.

### ITALIAN SWITZERLAND.

In my rambles last summer I visited the Lago Maggiore, and made a short stay in the Canton of Tessin. I hoped to have gained much information relative to bees, but not understanding Italian I could do but little among the natives. I found out, however, that the demand for Italian bees was a good thing for the bee merchants. "Mercanti d'api," as they are called, who, I soon learnt, carried sharp stings. I do not know that this propensity is confined altogether to that part of the world, for even here in England the rival authorities on bees like to sting each other at times.

At Bellinzona I met with a bee merchant named Chevalley, who told me that he sent colonies of bees as well as queens to various parts of England and Scotland. He has a large stock of bees in various parts kept principally for exportation. Those which I saw were all in rudely-constructed wooden boxes on the bar-frame principle, peaked one upon the other like a wall with a round hole in front, but no landing-board; each box opened by a door at the back, the frames ranging from side to side; being in a shed access to them was from behind. In examining the bees Chevalley opened the door and puffed in a little tobacco smoke from a short pipe, then took out frame after frame until he found the queen, his wife assisting him so that they overhauled them with as much indifference as if they were looking over so many Pigeons' nests, which highly amused my wife, who could not understand why they were not stung; and when asked the reason Chevalley said, "My bees are good, very good." We spent a very pleasant day with this gentleman and his wife, and left them with much regret so soon. I still have to learn how people at a distance think so much of Italian bees, for in other parts of Switzerland they seem to prefer the black bees.

Being on a voyage of discovery I learnt many things about the people which puzzled me not a little. The principal beast of burden seems to be the woman. Go where you will in highways or footpaths you meet the women and even young girls carrying the hotte. This hotte is like a large tub strapped on the back in which they carry everything; manure to the field and the produce home all is done by the woman. It is not uncommon to see them carrying live pigs to market and again loaded home with what they require, not only for themselves but for their neighbours, also the husband walking by their side carrying nothing but a large umbrella. I asked, Do the men do nothing? I am told very little besides smoking and chatting to each other at the public houses. The higher classes also live an indolent life. The men will turn out of bed at ten in the morning, go to the café or gossip about, backbiting each other, returning home, perhaps, at two in the morning. Many of them never see their children for weeks together. They are very fond of litigation, so that there is plenty of work for the lawyers; so much is this the case that a stranger might think there was not an honest man in the country.

I inquired further how it was there was no game to be found anywhere, neither for sport nor diversion; on the other hand, they take care that a small bird shall not live. Every kind from the Swallow to the Nightingale can be purchased in the markets for 6d. per dozen, so that two small birds and 2 lbs. of polenta costing 8d. will make a meal for a family. Even in this they do not kill the birds for sport—powder and shot is too dear, but take them in nets and traps. Thousands of innocent song birds are taken every year on the margins of the Italian lakes. The principle which seems to guide these people is to make the most of everything, while that which requires care in keeping is neglected. Poultry, Pigeons, Rabbits, Turkeys, Ducks, and Geese are hardly known. Horses, asses, and mules are only kept for travellers, few keep them for pleasure or even for labour. As to cats and dogs, they are hunted for sport, the former taken, which they prefer to Rabbit. In fact, they seem to abhor every kind of animal. When asked why it is so, they say they do not know, except they have not been accustomed to keep them.

A farmyard such as we have in England is unknown here; the incessant noise made by every species of animals, as the barking of the dog, the neighing of the horse, the braying of the ass, the crowing of the cock, the hen's call to the chicken, the cooing of the Pigeons, &c., is heard nowhere. All this merriment is not heard anywhere in the Canton of Tessin. I forbear to enlarge on this subject, but should like the opinion of other travellers if all this be true.—JOHN CARPENTER, *Brentford*.

**GOAT SHOW.**—The Crystal Palace Company intend having a show of Goats, to commence on the 24th inst., and being the first exhibition of the kind they hope to have a large entry. There are twelve classes, and liberal prizes are offered.

### OUR LETTER BOX.

**TAKING A LARGE SUPER (W. J. Hebbelshausen).**—We find no difficulty with Aston's bee trap, but can imagine a very large super such as yours requiring different treatment. We should have driven out the bees on mass first, and then used the trap to get rid of the remainder. It is not probable that the queen was in your super, in which case there would be a difficulty in dislodging the bees. Tobacco is a bad fumigator, and, indeed, all fumigating of bees is to be avoided; it makes them sick, and afflicts them with diarrhoea, which is not agreeable in a fine super of honey.

**WOODLICK IN SUPERS, &c. (F. M. M.).**—1. You can get rid of the woodlice by closing the space by which they enter. A little clay or other plastic substance plastered round will keep them out. 2. We hardly advise your suggested method of joining the bees, after taking the super, to the swarms in the rough bar-frame hive. You had better wait till a few days before you leave home, then drive the bees of both hives, and unite them by dabbing both of the populations down together in front of the bar-framed hive placed at hand on the ground. They will enter it together peaceably enough, one of the queens, of course, being sacrificed. Should there be any brood worth saving you can separate it from the rest of the comb, arrange it in a super,

and place it over the bar-frame hive for the bees to hatch out. Some of the bees will doubtless fly back to their old stand for some days, but will mostly return to the bar-framed hive.

**LEGUMINISING A HIVE (G. W. Jessop).**—We fear you have cut out for yourself a treatment of your bees beyond the powers of a beginner in bee-keeping. You can easily procure a pure-bred queen from any advertising salesman, as the Messrs. Neighbour & Sons. She will be, or ought to be, a fruitful mother, and can dispense with drones till swarming time next summer; but you will have to drive your colts to catch the queen. Then the Italian queen must be introduced by means of a queen cage or in some other way; and then comes the greatest difficulty of all—namely, the transferring of the whole to a Woodbury hive. We strongly advise you to wait till next year, as it is too late now to do it.

**CANARY HEN SITTING (Miss Bell).**—We should imagine by this that your Canary hen is again about to commence sitting; it will not hurt her to let her do so, provided she remains healthy. Judging from your remarks we presume she is in robust health, and will maintain her "good condition" for another fortnight or three weeks ere she commences to moult, although at this particular juncture many Canaries are commencing to cast their feathers. If such had been the case with the pair you are breeding from, we should have said, At once remove the nesting materials. All Canaries do not fall into moult at one time, for much depends upon constitution and the even temperature and way they are treated. You have done well towards the birds there is little doubt, and in return for your kind attention to them they have presented you so far with a goodly number of young birds. May they afford you still further pleasure with their harmony. If in the two earlier nests a chick was reared from each of the five eggs laid, with an additional couple reared from the third nest, you may consider yourself somewhat fortunate, for the rearing of a dozen young ones by one pair of birds over three nests is beyond the average. It is so far satisfactory for you to be able to account for the loss of three of the birds out of the five in the third nest. It is very often the case that young birds will die in the nests without the means of arriving at the true cause of death. Evidently the parent birds are kind and attentive, and if you continue your attention to them during the moulting sickness, and befit that and next April, most probably you will be equally successful with them next breeding season. We will assist you with our advice if needed. The changeable weather we have experienced during the past few days will very much affect Canaries and other cage pets, and speedily throw them into the moulting sickness. This becomes a natural consequence when following a period of heat. At the time we write our thermometer in the open air records 58° of heat only, with a strong breeze blowing from the north-west—cool enough certainly for July, and reminding us of our own feathers or covering.

### METEOROLOGICAL OBSERVATIONS,

CANTON SQUARE, LONDON.

Lat. 51° 30' 45" N.; Long. 0° 8' 6" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.
MONTH.	Barom- eter at 9 A.M. and Sea Level.	Hygrom- eter.		Direction of Wind.	Temp. of Soil at 2 ft.	Shade Tem- perature.		Radiation Temperature.			
July.		Dry.	Wet.			Max.	Min.	In sun.	On grass.		
We. 7	Inches. 30.385	deg. 62.4	deg. 59.0	N.E.	deg. 61.0	deg. 73.3	deg. 58.3	deg. 102.5	deg. 51.5	—	
Th. 8	30.615	60.8	58.6	N.	61.8	68.0	58.1	77.0	52.7	0.070	
Fr. 9	30.587	59.9	57.1	W.	60.5	68.5	58.5	61.7	48.5	0.055	
Sat. 10	30.535	59.7	54.1	W.	61.1	68.5	58.7	114.4	49.5	0.065	
Sun. 11	30.519	61.0	53.8	S.W.	57.5	64.3	57.0	114.5	45.1	0.215	
Mo. 12	30.608	60.6	59.3	W.	57.5	65.3	48.4	115.6	46.2	—	
Tu. 13	30.515	59.6	54.1	N.	57.4	70.3	45.5	126.1	56.6	—	
Means	30.505	60.4	54.8		59.1	67.1	49.3	105.3	47.1	0.076	

### REMARKS.

- 7th.—A very pleasant though rather cloudy day; storm-like at 5 P.M., but fine afterwards.  
8th.—Rather cloudy all day till the evening, then very bright.  
9th.—Fine early, but soon clouding over, and then rain more or less all day, and at times very heavy rain.  
10th.—Till noon cloudy and cold; very fine afternoon and evening, but rain before midnight.  
11th.—Fair early, but rain-like and windy; showers in the afternoon of the day; a fine rainbow about 6 P.M.  
12th.—Fine all day; at times very bright but windy, and cold for the time of the year.  
13th.—Very bright till noon, after that time cloudy; a few drops of rain about 7 P.M.

The nights much colder than last week, the days have many of them been cloudy with frequent showers, so that it has been far from a pleasant week.—G. J. SYMONS.

### COVENT GARDEN MARKET.—JULY 14.

VERY heavy supply of bush and standard fruit, Cherries especially, which are making very low prices, the bulk having been much injured by the late stormy wet weather. The quantity of English Pines sent in now is far in excess of the demand, West India fruit very good and cheap this season. Hothouse Grapes ample, inferior fruit selling at 1s. to 2s. per pound. An average amount of business is current among the dealers. French goods being in fair request.

	s.	d.	u.	s.	d.	u.		s.	d.	u.	s.	d.	u.
Apples.....	1	0	0	0	0	0	Walberries.....	1	0	0	0	0	0
Apricots.....	1	0	0	0	0	0	Neatlines.....	1	0	0	0	0	0
Cherries.....	1	0	0	0	0	0	Oranges.....	1	0	0	0	0	0
Chestnuts.....	1	0	0	0	0	0	Peaches.....	1	0	0	0	0	0
Currants.....	1	0	0	0	0	0	Pears, kitchen.....	1	0	0	0	0	0
Black.....	1	0	0	0	0	0	Quinces.....	1	0	0	0	0	0
Figs.....	1	0	0	0	0	0	Pine Apples.....	1	0	0	0	0	0
Filberts.....	1	0	0	0	0	0	Plums.....	1	0	0	0	0	0
Gobs.....	1	0	0	0	0	0	Quinces.....	1	0	0	0	0	0
Gooseberries.....	1	0	0	0	0	0	Raspberries.....	1	0	0	0	0	0
Grapes, hothouse.....	1	0	0	0	0	0	Strawberries.....	1	0	0	0	0	0
Lemons.....	1	0	0	0	0	0	Walnuts.....	1	0	0	0	0	0
Melons.....	1	0	0	0	0	0	ditto.....	1	0	0	0	0	0

## WEEKLY CALENDAR.

Day of Month	Day of Week	JULY 22—28, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
22	Th	Brecon Show.	72.3	51.4	61.8	11	44	1	48	58	49	24	48	13	6 8	208
23	F	West of Scotland Rose Show at Helensburgh opens.	74.0	51.4	62.7	12	4	0	8	10	10	44	9	30	6 11	204
24	S	Royal Botanic Society, 8.45 P.M.—Clockheaton Show.	72.6	51.7	62.1	14	4	59	7	22	10	5	11	21	6 12	206
25	SUN	9 SUNDAY AFTER TRINITY.	73.9	49.4	61.9	15	4	57	7	86	10			(	6 18	206
26	M		73.7	50.8	62.0	16	4	56	7	54	10	58	1	28	6 18	207
27	Tu	Bridge Show.	74.9	50.7	62.8	18	4	54	7	30	11	36	8	24	6 18	208
28	W	Preston Show opens.	76.4	50.8	63.6	19	4	53	7	59	11	54	4	25	6 12	209

From observations taken near London during forty-three years, the average day temperature of the week is 73.9°; and its night temperature 50.8°.

## WHEN TO PLANT.



PERHAPS I had better begin by telling my readers when not to plant—viz., when there is little or no root-action, as in midwinter; secondly, when evaporation is excessive, as at midsummer, unless means can be found to check evaporation till such time as the wounded roots are healed sufficiently to absorb an ample supply of moisture. If I were obliged to choose between these two extremes I should certainly for most plants prefer operating at midsummer; for then, if the work is carefully and quickly done on a day when the atmosphere is not deficient of moisture, root-action recommences in a few hours, I think I might say minutes, and our suspense is very short indeed, for then if a blank should occur we can for certain fill it up in October. Those who have not been obliged by circumstances to try midsummer planting would be astonished to see the amount of torture a healthy plant will bear at that time. When making new walks, &c., in ornamental grounds I have had good-sized trees out of the ground two or three weeks during June and July with merely a bit of grass wrapped round their roots, and they suffered very little from it: of course they had good balls, and they were well planted. If there are young immature growths they should be cut back when this can be done without disfigurement. Another plan is to check evaporation by syringing whiting-and-water, or even dirty water, over the foliage. Whiting is best, as it reflects the sun's rays.

I have no faith whatever in syringing outdoor plants with clear water in hot weather, unless it is for the purpose of knocking off insects, and these can be kept off easier, better, and with less injury to the trees in other ways. My own way is to syringe all wall trees subject to insect attacks with soft-soap water, about 2 ozs. to the gallon, once or twice during the growing season. Let those who wish to be fashionable use the celebrated compounds, I am content to be old-fashioned and use soft soap, which is unpalatable to every insect with which a gardener is tormented, including mealy bug. As this last-mentioned formidable enemy has not yet taken up his abode here, I make it a practice of keeping all newly-arrived plants in quarantine for two months, and giving them an occasional soapy bath. When they look at all suspicious, roots as well as leaves are washed. I have had several importations of this detested enemy, but so far, thanks to soft soap and my own clear eyesight (I would not trust any other pair of eyes besides my own), I have been able to kill the animal without materially injuring the vegetable life. Soft soap will also kill mildew on Peach trees much more speedily than sulphur will. The mildew on Roses is harder to kill, but even it will succumb to a tolerably strong dose. It should be applied in the evening after the sun is off the plants.

But my text is "When to plant," and I have not yet said anything about it. Well, the time to plant is as soon as the leaf-growth is fairly matured in autumn, and be-

fore the roots have ceased to grow, while the ground is warm and sweet and in a fit state to be properly worked. Those who recommend spring in preference to autumn planting probably never tried the latter; they are among those who are always two or three months behind in such work as can possibly be delayed, and consequently their autumn planting was done about the same time as their Christmas decorations. Of course that was quite a conclusive trial. Spring planters have had a glorious time of it this year, and of course I am arguing against great odds; but before beginners make up their minds about the proper time to plant, I would ask them to look back two or three years, and compare plants which have been shifted in October and the beginning of November with such as have been planted at any other time.

My advice is, now that the bedding-out is done, Strawberry-forcing over, the forced French Beans with their hosts of red-spider pest out of the way, the Grapes thinned, and we have comparatively nothing to do but keep the birds off and take note of the fruits they peek at first—for these are the best flavoured—lest our minds and brains should get rusty; for the old proverb says, "It is better to wear out than to rust out," that we should at once turn our attention to the trees, and make up our minds as far as possible what we are going to plant, and have it all in black and white. There is no time to do this in large private establishments in the autumn, for generally there are hosts of the *élite* from all parts of the country at our employers' tables, and our personal supervision is required daily for the dessert and floral displays; for we know we are then surrounded by critics, some competent and some of the other sort, and it is always well on these occasions to try at least and satisfy oneself.

Last September I planted over half a mile of ornamental Box-edging; it took less than a third of the time it would take to do in the winter or early spring, because the weather was good, the days not too short, and the soil worked beautifully. My man said, "Narra good to plant un now, measter, the vrost ull haave it out;" but, however, with a little forcible persuasion, it was planted, and the surface of the ground close to the Box was kept loosened instead of remaining firm as it was made up; consequently the frost, of which we had rather more than a sufficiency, did it no injury, and when examined in the spring it had roots 2 inches long, and the top commenced growth as early as that which had not been shifted.

Many people are afraid to move fruit trees before the leaves have fallen, this is quite a mistake. It is best for the growths to be matured, but immature growths can always be cut off, and if the leaves are so numerous as to cause excessive evaporation, and consequent shrivelling of the bark, it is a good plan to thin with the scissors, but not too much, for the more leaves the plant will bear without shrivelling the quicker will root-action commence.

It does not injure a tree a tenth part as much to move it before its leaves are fallen as it does to move it in the spring when its buds are beginning imperceptibly to swell, and its circulation, owing to the absence of vigorous root-action, is sluggish. I moved many fruit trees last October,

including Pears of a good size on the Pear stock, and they can hardly be distinguished now. Such is never the case with spring-planted fruit trees in the first season, and very often they do not really recover at all.

Another reason for amateurs planting early is that the nurserymen cannot plant till amateurs have finished, and consequently the later we defer our planting the less likely are we in future to obtain healthy young trees from the vendors.—WILLIAM TAYLOR.

### STRAWBERRIES AND THEIR CULTURE.

Is it merely a coincidence, or is a good season for Roses always a good Strawberry year? Our Roses have seldom been better; and both from reports in the gardening papers, and from personal observation at the exhibitions of Roses, the quality of the queen of flowers has been much above the average at other places as well.

One cannot say much about Strawberries by noting the exhibitions of this fruit at the London shows, for both the royal societies are piling down the prizes, and the principal exhibitors find it more to their interest to go to some of the provincial towns if the shows happen to be on the same day as those advertised by the metropolitan societies. However, good prizes were offered at the Royal Botanic Society on the 30th of June, and six exhibitors came forward to claim them. In all twenty-four dishes were exhibited. The best was one of *Duc de Magenta*—that is, best as far as appearance went. It is one of the sorts raised by Dr. Nicaise, but, like all the others by the same raiser, the quality is not first-rate.

I have grown a large number of continental sorts, but not one of them can compare in flavour with those raised in England. *La Constante*, *Lucas*, and *Alexander II.* have been grown at Loxford for several years in succession; they have been tried under many different circumstances, both out of doors and in pots forced and unforced, but under no circumstances is the flavour anything like so rich as *Sir J. Paxton*, *President*, *British Queen*, or *Frogmore Late Pine*.

It is very likely that the difference of climate has very much to do with this. In the drier and hotter climate of France, where Grapes ripen on Vines trained as we do Raspberries, the fruit of the Strawberry would in all probability be richer and more sugary as well as firmer in flesh than it would be under our more cloudy sky and moister atmosphere. I must say that the two new sorts selected this year—*Duc de Magenta* and *Auguste Nicaise*, are superior to those sent out previously. Although the flavour is not so good as the best of our own sorts, still they are better than some. For instance, *Admiral Dundas* is very much grown by exhibitors, but it has not one good quality to recommend it except size. The same may be said of *Empress Eugénie*, *Sir Charles Napier*, &c.

This has not been a good season for bringing out the flavour of Strawberries. A soaking rain does good just before the fruit colours if it is followed by hot weather; but it has not been so this year. We had to water before the flowers opened, and also after the fruit was set. Then, just as it ripened we had rain; much of the best fruit was spoiled, and none of the sorts came up to the mark as regards flavour. Even *British Queen* was sadly wanting in its peculiar rich flavour; and the worst of this old sort with us is that it does not bear half a crop. I am sure that five plants of *Auguste Nicaise* or *Duc de Magenta* carried more fruit than twenty plants of *British Queen* or *Mr. Badelyffe*. I name these two together, because they are so much alike that the keenest observer cannot distinguish the one from the other either by leaf or fruit. Like many others it is necessary for us to make the most of our ground; and if *British Queen* alias *Mr. Badelyffe* does not behave better in the future, it will be necessary to dethrone them and exalt others more worthy in their place.

I have a number of seedlings from *British Queen* crossed with *La Constante* and other free-bearing sorts. They are all wonderfully prolific and the fruit is of large size. Many of them are also *Queen*-flavoured. One sort of very dwarf habit has been much admired by visitors. As a pot Strawberry the yield of large even-sized fruit is marvellous. A gentleman well known in the horticultural world carried off a pot with ripe fruit to have it photographed. I gained the first prize with it at the Royal Botanic Gardens last year as a single dish. It was also one of the sorts in the collection of four which was also placed first. This year I again showed it, and it had the highest award. The plant and shape of the leaf is *La Constante*, and the fruit is the colour and shape of the *Queen*.

I am truly glad to report well of Bradley's Amateur this year. It was so bad with mildew both in pots and in the open garden last year that the crop was worthless. If I remember rightly it received a first-class certificate from the Fruit Committee at South Kensington, because the fruit was firm and of good quality in a wet season. My experience confirms this. There were scores of fine fruit on each of the plants, perhaps not one less than a hundred on some of them, and yet I picked a dish from about a score of plants that gained the first prize. I may say here that none of our fruits were thinned out.

Some persons fancy that exhibition Strawberries are gathered from plants that have only produced three or four fruit. Indeed one gentleman of large experience once made this remark to me, "I suppose only two fruits were allowed on a plant." This is quite a mistake, and I do not think that there is much gained by thinning the fruit from Strawberry plants. Let me sum-up the culture in a few words so that busy readers may remember it: Plant annually, trench deep and manure well, and give plenty of water if the season is dry.

It may be as well to just notice the different varieties. *Duc de Magenta* and *Auguste Nicaise* ought to have a fair trial. I do not know if they are much known in the trade yet, and it may save trouble if I state here that I cannot supply anyone with plants; we only grow a few, and when a new sort has been exhibited people send for "just a few runners," and they might think I am wanting in courtesy if I do not send them. I believe Messrs. Veitch of the Royal Exotic Nursery, Chelsea, can supply plants, as their foreman told me they were growing both sorts, or had grown them.

James Veitch I have seen in good condition. I am told that it is one of the best sorts to bear conveyance. It is of large size and fair flavour. Not having proved it under cultivation I cannot say more than this.

*President* and *La Constante* are still trustworthy under all circumstances. *Frogmore Late Pine* is one of the best late sorts. Mr. Laxton of Stamford seems to be raising new sorts, and if he becomes as successful with this fruit as he has been with Peas he cannot desire more.

There is still room for improvement in this as well as all other fruits, but it is working in the wrong direction when size and productiveness are gained at the expense of flavour. It is now time that all the runners are layered, and as soon as they are established in small pots they should be planted out for next season's crop, the strong-growing sorts 2 feet apart, those of more dwarf habit 20 inches.—J. DOUGLAS.

### CUT-BACK ROSES.

I HAVE been intending to write for a long time on the subject of the numerous letters that have appeared in answer to my article on cut-back Roses, but the period of Rose shows is so busy a one that I have not had a moment to spare. Indeed (as most Rose exhibitors will understand), I can truthfully say I have hardly had a good night's rest since the Exeter Show. The Alexandra and Crystal Palace Shows this year were on succeeding days, as also Hereford and Birmingham; indeed, all the Shows were crowded into about twenty days, and the work and care required of exhibitors has been incessant.

In my letter I prophesied how the cut-back Roses would sweep all before them, and I also predicted the great success Mr. Baker would have. Now, he showed entirely from cut-backs, and up to Birmingham was never beaten except for twenty-four distinct varieties at the Alexandra, and there his stand was put in a very unfavourable position, where it had the hot sun blazing down on its unprotected beauties all the day. He was first for forty-eight, thirty-six, and twelve at the Alexandra, and all the amateur classes at the Crystal Palace, and Exeter, and Hereford. In all he has had nineteen first prizes, and would have been grand at Birmingham (where, indeed, he was a very good second for the cup) if the rain had not done him so much damage the day before.

Such is the result, so far as amateurs are concerned, of the Rose shows; and now is it not wonderfully in favour of my dictum, "Stick to cut-backs?" But more than this, as it may be said that in all probability the great majority of amateurs who showed were exhibiting for the most part from cut-back Roses, and so the real issue was not tried. To this I answer that this is a doubtful question, and one difficult to arrive at a correct answer; but be that as it may, I venture to assert that at Exeter the universal opinion was that Mr. Baker's Roses were by far the finest in the Show; and I have been in-

formed that at the Crystal Palace they were much finer than at Exeter, and equal if not superior to those of the nursery-men, whose trees are numbered, not by thousands or tens of thousands only, but by hundreds of thousands.

My friend Mr. Peach, in his capital article in the issue of July 8th, asking for results, wishes to know whether the greater amount of Roses in the amateur stands at the Crystal Palace were not from cut-back Roses. The above will show him that the first prizes in every instance were so awarded, with the exception above named of the class for twenty-four Roses at the Alexandra. "*Experientia docet.*" I was in a large Rose nursery the other day, and I asked the proprietor what he thought of my article on cut-backs, and he answered, "I agree with every word of it, and have proved it over and over again."

I quite agree with Mr. Baker's advice as to growing both maidens and cut-backs in order to have a succession, and I can, alas! bear startling testimony to the value of this rule. This year I have relied entirely upon maidens, and have been nowhere till last Friday, when I secured a first prize at Oxford, and it was not till yesterday (July 13th) that my Roses were fairly in bloom. All the shows were over before I had Roses in bloom. My trees were growing in most wretched soil in a very exposed situation, and the high winds and heavy rains of the first part of June completely devastated them. If it had not been for my Teas and a very few cut-backs I could not have even cut blooms enough for a stand in any class. This was a most fatal mistake on my part, and one I would advise all to beware of. "Never put all your eggs in one basket" is a good rule in Rose-growing; but if you cannot help doing this—*if* from any cause you cannot find room for both, then stick to the cut-backs. Remember Mr. Baker's success in 1875—nineteen first prizes at five shows.—JOHN B. M. CAMM.

### SUMMER PRUNING.—No. 2.

**APRICOTS** are the first to require attention, and the wood of these trees, it is hardly necessary to say, is, as far as the state of the previous wood will permit, laid-in thicker than is practised with any other wall fruit; but even this may be overdone, so that we do not advise the shoots to be laid-in nearer than 2 to 3 inches apart, and only those which have very short joints are to be laid-in at that distance. The stronger shoots ought to be at least 9 inches apart, and between these the short-jointed and weaker wood, as also the spurs, which should not be more than an inch or two long, but from continued growth may have extended considerably. Those must be preserved, also securing the slender shoots to the wall so far as can conveniently be done without crowding. If the shoots of some standing are considerably extended, long and bare, with only a tuft of leaves at their extremities, and not carrying fruit, they may be cut out and others be laid-in in their place. Any shoots required for extension should be laid-in, not having them nearer than 9 inches, and they should be of the strongest description, and nailed-in their full length. Shoots which are not required should be cut back to two or three leaves. This operation is best done with a pair of 4-inch pruning scissors; they are handy, and may be easily carried in the waistcoat pocket. Stronger scissors will be required for strong shoots, they may be carried in the leathern nail-and-shred bag.

From the middle to the end of June, or the early part of July in the north, is about the time Apricots require their first summer pruning. After this the trees should be gone over again at the end of July or early in August, cutting any laterals back to one leaf, and if the strong shoots laid-in far covering space, or the extension shoots have pushed laterals, they should be cut to one leaf, any extension of growth being secured to the wall. About every month or six weeks from commencing to summer-prune, the trees should be gone over, and attended to in stopping and training. It is no use allowing the trees after the first stopping to become crowded with laterals; a few leaves of each successive growth are sufficient to attract the sap and maintain the roots in a healthy, active state, whilst their removal admits light and air to the fruit, and secures in the highest possible manner the maturity of the buds and wood upon which we are dependant for next year's crop.

Cherries will, next to Apricots, demand the attention of the summer pruner. The operator will first see to the extension shoots, and what are required for furnishing; and those being

secured at the requisite distance apart—1 foot for the strong growers, and 9 inches for the moderate growers—and securing them to the wall, will proceed to cut back all other shoots of over 2 inches in length of the current year's growth to three leaves, but not shorten the leading shoots or in anywise interfere with the spurs. It is usual to lay-in the shoots much closer than is named above, and it may be done upon the understanding that they are to be removed when they interfere with the spurs upon the principal branches. If the trees cover their allotted space no shoots will be required to be laid-in, unless, of course, there be vacant space, but they are to be cut back to three leaves, and otherwise treated as foreright or side shoots.

The Morello Cherry is treated in a manner similar to Apricots: All the side shoots available are laid-in, the foreright shoots only being cut back to three leaves, and all shoots not exceeding 2 inches long being left entire. It is a mistake to conclude that the Morello is not amenable to spur-pruning. It bears as well upon close spur-pruning as in the laying-in of the annual growths, which only tends to crowd the trees with wood, and a quantity of it bare, without affording any corresponding advantage over those which are spur-pruned. Being of weaker growth than most sorts, the branches, spur-pruning being practised, should not be more than 6 inches apart.

No tree is so prolific as a pyramid of the Morello Cherry. In fact, all Cherries bear abundantly, especially the Duke and Kentish kinds, in this form on the Mahaleb stock. The operation in pruning bush and pyramid Cherry trees consists in the extension of the shoots suitable for filling up space and forming symmetrical specimens, stopping them to 9 inches; but if only a moderate extension be required stop them to 6 inches, whilst if they be as large as required stop to three leaves—the extremities as well as the shoots upon the main branches. All shoots upon the branches to be cut back to three leaves, but those not over an inch or two long are not to be stopped. If the side shoots are not over 3 inches long they need not be shortened, but left their full length; and the extremity and furnishing shoots not being more than an inch or so longer than the lengths to which the stopping is advised, do not for the sake of removing the extra inch apply the scissors. Always be sure that the extremity bud in each case is formed, for to take off the point of a shoot 10 inches long when we only require it 9 inches, or shorten a 7-inch shoot to 6 inches, is to cut away its, perhaps, only wood-bud, leaving only fruit-buds below, and which after blossoming will drop the fruit in a young state from there being no shoot above or near to support it. Trees of this description need little or no pruning, needing only irregularities corrected, and instead of curtailing the growth they require feeding at the roots. The main branches should be 9 inches to 1 foot distance apart.

Very vigorous trees are to be kept well stopped, but not more than above described. It will to some extent limit root-action, and it will tend to the ripening of the wood; but no amount of summer pruning will bring a very vigorous tree into fruitfulness; its roots must be acted on, for which the stopping is a good preparative.—G. ARBEX.

### SILENE PENDULA.

**AUTUMN-SOWN** annuals for spring decoration play an important part in the decoration of many gardens. This is the best of the spring annuals, but, as is often the case with *Myosotis*, the seed is frequently sown too late to produce plants to give a satisfactory display. Too often are the *Silenes* sown in September with the *Nemophilas* and other annuals, but that is altogether too late. Sown at that period the plants have not sufficient time to become stout before winter, which they should be to flower early and profusely.

The seed should be sown thickly in drills towards the end of July, the seedlings eventually to be thinned out to 6 inches apart. By the time the beds are cleared of the summer plants the *Silenes* will be touching each other, and will take up with large balls after the manner of Sweet Williams and other biennials. Such plants planted closely together in the beds bloom early and profusely, and give such masses of pink that few plants can equal. These stout plants are seldom injured by frost, wet, or slugs, and are as certain to bloom as are the Snowdrops. By directing timely attention to sowing the seed of this the best of spring annuals I shall be doing a service to some who covet a rich spring display, but who, through misapprehension or forgetfulness, would fall into the common

error of delaying to sow the seed until the autumn, and thus invite failure, or at the most only partial success.

*S. pendula alba* is a nice companion plant to the above, and *S. pendula compacta* is very valuable for a front row or for small beds. The *Silenes* are the most certain, effective, and easily produced of all early spring-flowering annuals. Sow at once.—*J., Battersea.*

## ROYAL HORTICULTURAL SOCIETY.

JULY 21ST.

For a length of time the light of the Society has been fading, and was in fact all but extinguished. We had little to do beyond watching the dying embers and to note them one by one mouldering away. At the last Show there was a flickering of life by a special and successful trade effort, otherwise what should have been one of the brightest displays of the year would have been a dreary and dismal blank. It was no wonder that energetic measures were determined on by our representative horticulturists, for to have remained any longer passive they would have invited a verdict of disloyalty to an honourable yet severely stricken cause. But action was taken in an effective manner and to a profitable purpose, of which yesterday we noted the first-fruits. It is a magical transformation from the point of vacuity to complete fulness, from famine to plenty, from death to life. The wet blanket is removed, the horticultural flame is fanned, latent enterprise is kindled into action, confidence is restored, and the first conditions of future success are provided. We trust that now is laid the foundation of national horticultural prosperity, and which will culminate in the Society achieving a position of the first rank, to be honoured and respected at home and abroad. Neither will this be a success of a mere section, but a success which will obliterate sections, and show that the advantages of what are known as the local and horticultural interests are more nearly identical than class-partisans dream of. We would merge all classes and unite all resources, bury the past and look only to the future—know nothing, indeed, but the elevation of horticulture to its legitimate position as having a broad scope and illimitable sympathies, and seek to place the Society in a position worthy of its name and nation.

But to the Show, for this time it is a Show, as may be expected when such an influential body of contributors offer spontaneously the aid of their rich collections. Of those who so promptly notified their intention to exhibit were Messrs. J. Veitch & Sons, Mr. B. S. Williams, Mr. Bull, Mr. Turner, Messrs. Paul & Son, Messrs. J. & C. Lee, Messrs. Osborn & Sons, Mr. Standish, Mr. Wills, Mr. Outbush, Mr. Laing, Mr. W. Paul, Mr. Wimsett, Mr. Morse, Mr. Barr, and a number of other florists and private gentlemen.

An offering such as this commanded success—a success unequivocal and complete. The last summer show of the season was not only the greatest, but greater than all the previous shows combined. Hitherto we had half-filled corridors, but on this occasion the spacious marquees were not only brought into requisition, but they were crowded to repletion. For this grand Exhibition the nurserymen have covered themselves with honour, and have proved unmistakably what English horticulturists can do when the craft they represent has due official recognition and encouragement. We were met at the outset by the remark of an experienced exhibitor, "Where are you going to begin?" Well might he have asked the question, for the aspect of the great plant marquee presented a bewildering array of beauty. But as we happened to be standing near the collection of Messrs. Veitch & Sons we will begin there in our glance at the commemorative section of this great Show.

It was an extensive and magnificent bank, rich, varied, and admirably arranged. The Tree Ferns and Palms towered aloft from a base of ornamental-foliaged plants. The margin was fringed with flowering plants, surmounted with *Nepenthes* laden with huge pitchers. Striking amongst the flowering plants were *Begonias Vesuvius*, *Model*, &c.; *Liliums* in variety, *Orchids* rich and rare, *Hydrangea paniculatum grandiflorum*, and a grand selection of *Gloxinias*. The basket Ferns *Asplenium longissimum* contributed a nice feature to the group, and the *Sarracenia*s were curiously attractive. It was a collection worthy of the efforts of the firm by which it was exhibited, and more need not be said.

At the opposite end of the tent Mr. B. S. Williams's noble contribution was arranged. This was a bold and massive bank of plants, which for size, quality, and arrangement have probably never been surpassed and seldom equalled. Tree Ferns, Palms, Cycads, Crotons, *Dracenas*, &c., were conspicuous amongst the fine-foliaged plants, the flowering section consisting of *Liliums*, *Anthuriums*, *Dipladenias*, *Stephanotes*, *Allamandas*, &c. This noble collection of plants was a central point

of attraction, and well they might be, for their intrinsic excellence commanded attention.

Contiguous to these, and distinct in appearance, was the valuable group of Mr. O. Turner. They consisted mainly of splendid specimens of *Ivies*, relieved by *Liliums* and fringed with *Palms* and cut *Roses*. Everything in the collection was good, and the effect was very striking. The decorative force of these *Ivies* must be admitted when seen in the condition in which these were shown. Facing these were the collections of Messrs. J. & C. Lee, Mr. Wimsett and Mr. Aldous. Messrs. Lee's group was extensive, and in remarkably good condition, and consisted of *Aloes*, *Ferns*, *Palms*, *Heaths*, *Liliums*, &c., Mr. Wimsett's being of the same character; Mr. Aldous's bank comprising smaller decorative plants, bright and fresh, as his plants invariably are.

Flanking the centre of the tent and arranged on terraced mounds were the imposing groups of Mr. Bull and Mr. Wills. Mr. Bull's was so good that to particularise the meritorious plants were to name nearly all; yet we note the massive *Palm Pritchardia grandis*, the most distinct of all *Dracenas*—*Goldiana*, the richness of colouring of *Croton majesticum*, the ram's-horn-like form of *C. volutum*, and the fine character and finish of *C. spirale*. The group also embraced a grand *Phyllotanium Lindenii*, *Cycads*, *Palms*, *Liliums*, *Orchids*, &c. It was a great and valuable collection. Mr. Wills's plants were not quite so large, but were equally healthy and attractive, and were bright by a choice fringe of flowering plants. Noticeable were the *Orchids*, *Lilium longiflorum*, *Begonias* in variety, *Gloxinias*, *Nerium splendens variegatum*, *Yuccas*, *Pandanus*s, *Palms*, *Ferns*, &c. Altogether this was a valuable contribution, and Mr. Wills is to be complimented on his products.

The central bed was occupied by Lord Londesborough on the one side with *Orchids*, and on the other by J. Peacock, Esq., with *Succulents*. The collection of one was exceedingly brilliant, and the other extraordinarily curious. The *Orchids* were represented by *Saccolabium Blumei* with eight racemes, *Dendrochilum filiforme*, *Epidendrum vitellinum major* and *memorale majus*; *Vandas Batemanii* and *Bensonii*, *Oncidium lanceanum*, &c., and a beautiful *Diss* from South Africa, similar to one exhibited in the Council-room by Mr. Bull. These *Orchids* were not large, but very beautiful. A specimen *Orchid* from Mr. Bates, gardener to W. H. Punchard, Esq.; Twickenham, deserves honourable mention; it is 4 feet through, with over twenty spikes and a hundred blooms. Of the curiosities of Mr. Peacock's it is impossible to select the most striking, but we notice *Echinopsis Wilkinsii* in flower, *E. scopa candida*, *Mammillarias* in variety, *Agaves*, *Yuccas*, *Pandanus*s, &c.—a very valuable and interesting group.

We now come to the outer circle of the marquee, and note well-bloomed *Ericas* from Messrs. J. & C. Lee; splendidly coloured tricolor *Pelargoniums*, and very fine *Liliums* from Messrs. E. G. Henderson & Sons; admirably grown *Caladiums* from Mr. Clark, gardener to W. Shuter, Esq., Hampstead; immense *Dicksonias* from Mr. Wills; a glowing collection of *Zonal Pelargoniums* from Mr. W. Paul in nearly every imaginable colour; clean, bright, and effective decorative plants from Messrs. James Carter & Co.; a rich and valuable collection of ornamental plants from Messrs. Rolliason & Sons, including an immense *Todes* and brilliant pans of the lowly *Nertera depressa* spangled with berries, *Nepenthes*, and fine baskets of *Reedia glaucescens* and *Phyllanthus mimosifolius*.

We now take breath and note effective and glowing *Clematis*, with *Ivies*, *Palms*, &c., from Messrs. W. Outbush & Son, *Hydrangeas* from Mr. Aldous, and beautiful *Succulents* from Mr. Dean and E. G. Henderson & Sons. For these plants good prizes were offered; the awards are in our advertising columns. *Ferns* and *Fuchsias* were exhibited by Mr. B. Parker, and a rich and effective group of fine-foliaged plants by Messrs. Osborn & Sons. Mr. Wheeler, gardener to Sir F. Goldsmid, Bart., set up a highly creditable collection of flowering plants; and well-bloomed and healthy *Heaths* came from Mr. Morse, Epsom. Messrs. Ivery & Sons exhibited a very complete collection of hardy *Ferns*; and Messrs. J. & C. Lee choice *Cypripis*, remarkable *Quercuses*, and *Roses*; and Messrs. J. Jackson and Sons brought twelve exceedingly fine and fresh *Heaths*. We complete our notice of these groups by noticing a splendid collection of specimen fine-foliaged plants from Mr. Harrow, gardener to H. Bessemer, Esq., Camberwell, the *Crotons* being in admirable colour, and the whole healthy; and a collection of well-bloomed *Orchids* from Mr. Stevens, gardener to the Duke of Sutherland.

**PELARGONIUMS.**—These plants were arranged down the centre of a tent 200 feet in length, and, as may be expected, they made a brilliant display. Still on examination we could not fail to be struck with the inferiority of a great number of the plants. They lacked the refreshing freedom which we should like to see, or at any rate the art of staking and tying should be more hidden.

In the nurserymen's class for eighteen *Zonals*, distinct, in 6-inch pots (open), Mr. Laing had the first place, Mr. Rose



second, and Mr. Meadmore third. None of these plants were of superior merit. For six Zonals, florists' varieties, in 8-inch pots (amateurs), Mr. Catlin had healthy and good plants, and easily won the first place, the second-prize collection being too flat, formal, and overdone in training. Six florists' varieties sent out in 1873, or not in commerce (open), Mr. Brise was first with Mr. Pearson's Lady Byron, John Fellows, Rev. J. Atkinson, John Gibbons, Ethel, and Sir H. S. Stanhope; Mr. Laing being second with Laing's Mrs. Sandring, Rev. T. Downie, W. K. McNab, Pearson's Rose of Allendale and Charles Burrows, and Dr. Denny's Richard Cœur de Lion. These contained some very fine blooms. Double varieties were not largely exhibited, and the plants generally do not call for comment. The awards are given in another column. Mr. Laxton, however, exhibited cut blooms of some fine seedlings.

In the class for eighteen Golden Tricolor varieties in 8-inch pots (open), Mr. Pestridge was first with dazzling plants; Mr. Meadmore being second with better foliage, but not so bright in colour. The best varieties were Peter Grieve, Prince of Wales, Florence, Princess of Wales, Miss Goring, Achievement, Wm. Sanday, and Mrs. Headly. In the amateurs' class Mr. Lambert had the first place with nice specimens, Mr. Hinnell being second with small but well-coloured plants. For six Silver Tricolors (open), Mr. Pestridge was again first with good plants of Mrs. J. Marshall, Lass o' Gowrie, Miss Burdett Coutts, Mrs. Col. Wilkinson, Miss Pond, and Charming Bride; Mr. Meadmore and Mr. Hinnell having second and third place respectively with nearly the same varieties. For six Gold Bicolors (open), Mr. Laing secured the first place with very effective plants, Mr. Pestridge being placed second, and Mr. Meadmore third. The best were The Czar, Emperor of Brazil, Mrs. H. Weir, W. E. Grumbleton, Earl of Rosslyn, and Mrs. Quilter. Cut blooms were very effective and good, and noticeable were some single pipe from Dr. Denny of great quality and substance.

#### PRIZES OFFERED BY THE PELARGONIUM SOCIETY.

These were very liberal, and cannot fail to give an impetus to the cultivation of this exceedingly useful family of plants. For twelve florist's varieties first honours went to Mr. Catlin for good plants in perfect bloom from 2 to 4 feet in diameter, Mr. Roser being second with loose plants. In some of the plants too many sticks were used, which spoiled their effect. For twelve plants of the "decorative" class (open), Mr. Catlin again secured the first place with dwarf, sturdy, massively-bloomed plants from 2 to 3 feet in diameter; Mr. Roser, gardener to M. T. Shaw, Esq., Wimbledon, being second with good yet looser plants. For a collection of thirty varieties, irrespective of class, in pots not exceeding 6 inches in diameter (open), there was good competition, the first award going to Mr. Catlin for vigorous plants with massive blooms; second to Mr. Brise for nice plants, but with a superabundance of white sticks. In the class for six Fuchsias (amateurs), some excellent plants competed. Mr. Harrington's plants were slender and elegant pyramids, Mr. Lambert's and Mr. Weston's being more bulky and massive.

CUT BLOOMS.—Carnations and Picotees were a grand show, Mr. Turner and Mr. Hooper having the principal places amongst the nurserymen, while in the amateurs' classes Mr. Douglas was pre-eminent, followed by Mr. Burnaby Atkins and other exhibitors whose names will be found in the prize list. Mr. Turner also exhibited special collections. The boxes of these flowers were so fine as almost to take one's breath away, and crowds clustered round them to criticise and to admire. Mr. Turner also staged twenty-four trusses of Verbenas of great merit. In hardy cut flowers Mr. Parker had splendid collections of eighteen and twelve varieties which showed to great advantage in contrast with the overpowering effect of the Pelargoniums. Messrs. Paul & Son, Cheshunt, staged an admirable collection of table plants and cut Roses of superior quality. Roses were also admirably exhibited by Messrs. Cranston & Mayes, and Mr. Prince, and contributed an important and attractive feature to the Show. Glasses of cut flowers for table decoration were contributed by Mrs. Hudson, Dulwich, and their arrangement evinced considerable taste.

#### FRUIT.

For the liberal prizes offered by Messrs. James Veitch & Sons was a grand and gratifying response. The first prize for ten dishes was worthily won by Mr. Coleman with grand Black Hamburgh and excellent Bowood Muscat Grapes, a good Pine and Melon, splendid Royal George Peaches and Oxonian Strawberries, Golden Gage and Early Prolific Plums, Figs, and Nectarines; Mr. Miles being second with a capital Pine and Melon, very good Grapes, splendid Cherries, Peaches, and Figs, and good Plums and Nectarines. Mr. Sage was placed third for a very nice collection, in which were noticeable a good Colston Basset Seedling Melon, and a fine but unripe bunch of Bananas. For six dishes Mr. Bannerman had the first place with Black Hamburgh and Muscat Grapes, Trentham Hybrid Melon, and Peaches and Nectarines, all alike of superior quality and finish; second honours going to Mr. Jones, gardener to the Marquis of Londonderry, in which the Grapes were remarkably fine and the other dishes very good. Mr. Cornhill, gardener to J. S.

Virtue, Esq., was third with a nice collection. Two others competed.

For the best three Pine Apples nine competed. The first-prize fruits were really fine from Mr. H. Scammell, gardener to O. Reilly, Esq., The Priory, Neville Park, Tunbridge Wells; he had Charlotte Rothschild and two Queens, all highly coloured and weighing 18 lbs. Mr. H. Chamberlain, gardener to H. Thompson, Esq., The Warren, Bushey Heath, had the second award with fruit of even size and in capital condition. Mr. Miles, gardener to Lord Carrington, Wycombe Abbey, being third with fruits weighing 15 lbs. 2 ozs.

Grapes. In the class for three bunches of any kind except Muscat of Alexandria and Black Hamburgh there were seven exhibitors, the first prize going to Mr. J. London, gardener to T. Barnes, Esq., The Quinta, Salop, for a bunch each of Madresfield Court, Golden Champion, and Sealiffe Black; Mr. W. Cox, gardener to Earl Beauchamp, Madresfield Court, being second for three bunches of Buckland Sweetwater; and Mr. Deaville, Wyaston Lays, Monmouth, third for the same variety. The quality of the fruit in these collections was of high average merit. For three bunches of Black Hamburgh there were fourteen competitors. The first-prize lot, which were exceedingly fine and well finished in colour and even in berry, fell to Mr. Coleman of Eastnor Castle; second honours for nearly equal produce going to Mr. Coomber, The Gardens, Hendre Park, near Monmouth; Mr. W. Jones, gardener to the Marquis of Londonderry, being placed third with fine large bunches. In nearly all cases these Grapes were remarkable for large bunches and berries, and were well finished. For three bunches of Muscat of Alexandria, the first prize was gained by Mr. Bannerman, gardener to Lord Bagot, Blithfield, Rugeley, with first-rate coloured berries and large bunches. Mr. J. London, The Quinta, Salop, being second with bunches of excellent colour, but rather looser. Mr. J. Woodbridge, gardener to the Duke of Northumberland, having the third place with fine bunches but not fully ripe. The Grapes generally were of great excellence, and were highly creditable to the different growers.

Peaches were a grand show. For the best six fruits there were about thirty competitors, first honours going to Mr. Richards, gardener to Baron L. de Rothschild, for a splendid dish of Bellegarde; second to Mr. Fennell, gardener to E. Casalet, Esq., for a beautiful dish of Noblesse; and third to Mr. Edmonds, gardener to the Duke of St. Albans, for unnamed fruit of high quality.

For the best six Nectarines twenty dishes were staged, first honours going to Mr. Edmonds for a handsome dish of unnamed fruit; second to Mr. Jack, gardener to the Duke of Cleveland, for a highly-coloured dish of Elruge; and third to Mr. Brise, gardener to J. H. Lermite, Esq., Finchley, for Violette Hâtive of superior quality.

Gooseberries in great variety were exhibited by Mr. Walker, Thame; and Apples by Mr. Earley, Valentines. Six Little Heath Melons, weighing 39 lbs. and beautifully netted, were exhibited by Mr. Bennett, Rabley, Herts. Mr. Jones of the Royal Gardens staged remarkably fine Peaches, Nectarines, and Plums; and Mr. Morris, Potter's Bar, Peaches and Nectarines.

Cucumbers were a poor show, the awards going first to Mr. Bennett, and second to C. B. Bingley, Esq., both with good fruit of Duke of Edinburgh.

Thus is concluded our necessarily hurried report of this great Show. As an exhibition it was one of the best of recent years, and all connected are to be congratulated on the success of their efforts. Unfortunately the rain poured down in torrents, and it was wisely proposed by the Council, a proposal which met a generous acquiescence on the part of the exhibitors, to continue the Show another day, that the public may have an opportunity to enjoy a treat which is eminently worthy of their patronage, and which cannot fail to afford them both pleasure and instruction.

FRUIT COMMITTEE.—Henry Webb, Esq., in the chair. Mr. Barron's report on the Early Snowball Cauliflower was read; he stated that he had inspected the plants growing at Bedford, and they did not appear to have been subjected to any exceptional treatment. The Committee decided that it be submitted to a trial with a general collection of Cauliflowers at Chiswick next year. Mr. Perkins, Thornham Hall, Eye, sent a dish of Dan's Mistake Gooseberry. He also sent a fine fruit of Barington Peach, which was sent under the name of Bellegarde. A dish of Red Tomatoes shown by Mr. Perkins were pronounced by some members to be "the best they ever saw," and were awarded a cultural commendation. Mr. Gilbert of the Gardens, Burghley, Stamford, showed a dish of Jackson's Seedling Tomato, which is very similar to Hathaway's Excelior and Carter's Green Gage; they were finely grown and received a cultural commendation. He also sent a seedling scarlet-flesh Melon which was not in condition. Mr. Freeman, the Gardens, Beechwood, sent a brace of Duke of Edinburgh Cucumbers, and Mr. S. Owen, gardener to G. S. Schwabe, Esq., Broughton, Liverpool, sent a seedling Cucumber similar in character to Telegraph; it was a very fine fruit, and received the commendation

of the Committee. Mr. J. Maher, Stoke Court, Slough, sent a brace of Cucumbers called Sultan, which though fine fruit, were not distinct or superior to others in cultivation. Mr. E. Bennett, Babley Nurseries, Shenley, sent a Cucumber called Rabley Hero. He also exhibited a fasciated branch of Duke of Edinburgh Cucumber; the fasciation, which was  $\frac{3}{4}$  to 4 inches wide, was like a broad band with the leaves and Cucumbers stitched on it.

Mr. Charles Turner, Slough, sent a quantity of his new Pea Dr. Maclean, a fine large full-podded Pea containing eleven Peas. It was much admired, but before making any award on its merits it was decided to have it grown at Chiswick. Mr. Woodbridge, the Gardens, Syon House, Isleworth, sent a branch of Bigarreau Napoleon Cherry, studded with fine large highly-coloured fruit. A vote of thanks was awarded to Mr. Woodbridge. G. F. Wilson, Esq., Heatherbank, Weybridge, sent a dish of Beurré Giffard Pear from a tree grown in a pot, the fruit set in an orchard house and ripened out of doors. They were quite ripe and of excellent flavour. Mr. Tillery of Welbeck sent a dish of very fine Galande Peaches and Violette Hâtive Nectarines, which received a cultural commendation.

Mr. Jones of the Royal Gardens, Frogmore, sent a seedling Apricot called Frogmore Early, a small Apricot the size of Breda, quite ripe, and was grown against a wall in the open air. Mr. Jones stated that he had been gathering the fruit since the 13th of July (nine days ago). In consideration of its high merit and earliness in a season which is proverbially a late one, the Committee awarded it a first-class certificate. Mr. Stevens, gardener to G. Simpson, Esq., Wray Park, Reigate, sent a seedling Melon, Stevens's Seedling Green-flesh, but it was not in condition. Mr. Wildsmith, gardener to Viscount Eversley, Heckfield, sent a seedling Melon, but it had not much flavour, but it was so thin in the skin and so promising the Committee expressed a wish to see it again. Mr. Raynham, Stradeshall Place, Newmarket, sent a seedling scarlet-flesh Melon of very promising character, which the Committee asked to see again. It is to be remarked in justice to the reputation of these new Melons, that the late heavy and continuous rains and sunless skies have operated very much against their successful cultivation.

**FLORAL COMMITTEE.**—B. S. Williams, Esq., in the chair. Mr. Robert Fleming, gardener to R. Houghton, Esq., Sandhays, Liverpool, sent a very fine form of *Adiantum cucullatum* var. *Flemingii*. It is far superior to *A. c. latum*. The fronds are finely divided, and arch over more gracefully. This had a first-class certificate. *Polystichum angulare* var. *grandidentum* purpureum from Messrs. Ivery & Sons, Dorking, also received a first-class certificate. The fronds are narrow and sword-shaped. Other fine forms of the species were sent by the same exhibitors. They had also a very fine form of the Lady Fern, *Athyrium Filix-femina cristata* Iveryana, and another *A. F.-f. Veronica crispa*, and *Scolopendrium vulgare* Droveri.

A group of single and double Zonal Pelargoniums were sent by Mr. W. Paul of Waltham Cross. They were mostly continental seedlings, and comprised some very distinct flowers. Talabot, a purplish crimson double, is very distinct, and had a second-class certificate. Ernest Faivre, white, salmon centre, is very dwarf and distinct; and Madame Thibaut, bright rose, very distinct, double, of good habit. Mr. G. Smith, Tollington Nursery, Hornsey Road, Islington, sent a very fine Zonal, white with salmon centre, named Evening Star; and Challenger, a variety of the Nosegay type with an immense truss of crimson flowers; also a basket of a remarkable double Zonal Pelargonium, a sport from Vesuvius. The flowers are semi-double, and the petals have the quality of hanging to the trusses more firmly than in any other sort. It deservedly received a first-class certificate. It will doubtless be a fine bedding plant. Messrs. E. G. Henderson & Son of St. John's Wood sent a very fine group of new plants, comprising *Sonchilias*, of which *S. Hendersonii argentea* and *S. Hendersonii marmorata* are very fine. *Begonia* Prince of Wales and Princess of Wales of the linear-leaved group are quite distinct in character. *Pellaea Bridgesii*, a neat Fern with glaucous fronds, had a second-class certificate. They also sent a collection of *Begonia*s of the *B. Veitchii* type. Mr. C. Green, Botanical Nursery, Holmesdale Road, Reigate, sent a new Aloe mottled like the old partridge-breasted species, with elongated spiny-curved leaves. It received a first-class certificate.

From the gardens of Sir G. Macleay, Pandell Court, Blotchingly, were sent out flowers of *Begonia Vesuvius* from the open ground. Its large bright vermilion flowers were splendid. A new Rose with the foliage splashed conspicuously with yellow was sent by Mr. J. Perkins of Thornham Hall, Eye, Suffolk. The flowers are not of very good quality.

A collection of cut leaves with pitchers of six different species of *Nepenthes* sent by Mr. D. Thomson of Drumlanrig Castle Gardens, Dumfries were much admired for their extreme beauty. *N. distillatoria* was represented by a growth with seven very large pitchers. *N. Rafflesiana* was also very grand.

A basket of a good type of Zonal and seedling Pelargoniums was sent by Mr. Young, gardener to H. Webb, Esq., of Redhill.

Mr. W. Bull of King's Road, Chelsea, also received first-class certificates for *Dracena triumphans*, a species with bronzy metallic linear recurved foliage; *Kentia Moorei*, a splendid Palm with noble foliage like *K. Fosteriana*; *Diss. Borelii*, a very fine species, which might be designated a major form of *D. grandiflora*, but much superior to any of the forms of that fine species; *Lomaria debrodyensis* and *Martinezia nobilis*, a very fine decorative Palm. Mr. Bull also exhibited a large number of new Palms, Ferns, and other plants.

Messrs. J. & C. Lee sent *Juniperus virginiana*, "*Triomphe d'Angers*," which received a first-class certificate; *Taxodium sempervirens alba apica*, and other coniferous trees and shrubs. A first-class award was voted to the Juniper. Rev. J. B. Norman, Whitechurch Rectory, Edgware, had botanical certificates for *Masdevallia* species, supposed to be elephants, of a bright greenish yellow externally, the lip a purplish brown—a curious and interesting species; and *M. Normanii*, the back of the flower a reddish purple, and internally a greenish ivory white with yellow tails—a very pretty species. Other plants may be omitted owing to their removal from the Council-room before our notes were completed.

## THE ROYAL NURSERIES, SLOUGH.

Our main object in visiting these nurseries was to see the Peas now growing in the grounds, and especially to note the condition of a new variety bearing an honourable name—Dr. Maclean. It is very easy and very common, also natural, on seeing an exhibition of plants, fruits, or vegetables, to fancy that we have examples as good or better at home. Such opinions are frequently and honestly formed, but in nine cases out of ten if that which in the solitude of home looks so meritorious is placed in position with the best products of others, our idol is robbed of a portion of its glory, and it is only then that we really and accurately obtain a just measure of its merit. No one is more alive to this fact than Mr. Turner, and no one could less afford to attach his name to a commodity of doubtful merit or fictitious fame; hence his new Pea must undergo the test of a full and fair trial with the first and best varieties of the day, and must stand or fall on its merits in comparison with those of its peers.

This parliament of Peas now in session at Slough consists of twenty-five representatives of the great Pea constituency. All the famous Peas are here, from Alpha to Omega. There are fat and full G. F. Wilsons, dwarf and sturdy Uniques, gigantic Superlatives, and all sorts of big marrows. Best of All is in ruddy garb, and James's Prolific is heavily laden. There is a row each of Quality and Quantity, the tempting Connoisseur, the new and good Supplanter, and of course the Premier. Such are a sample of the varieties which have proved their worth and calibre; and fine as these rows are, and worthily as they have won their fame, yet we say it—because we cannot by seeking find a shade of doubt on the point—that if the new member had been named Alpha or Omega, Best of All, or Premier, or any other title which fit the others so well, that it were worthy of that title, for it is the first in appearance—a veritable "Alpha," the last in age—an "Omega," and a splendid finish; it is the "Best of All" the gathering, and a veritable "Premier" amongst its peers.

We are aware that is saying a great deal, but we have not a word of qualification to append. We say it because it would not be justice to say anything less, and because we have no fear of our verdict being challenged by other competent judges. The rows of Dr. Maclean are nothing short of a grand sight. Not in one point alone does this Pea excel, but in every quality its merits are apparent. In productiveness it is unequalled, in size of pod unsurpassed by any save Superlative, in fulness it is replete, in colour all that can be wished, and in sturdiness and vigour it satisfies an exacting criticism. We have only to add that it is 3 feet in height, and is—for on this point we have tested it—of high table quality.

Mr. Turner has sent from his nurseries many things of which he may be proud, but nothing in either plant, fruit, or vegetable for which he is responsible will better uphold his reputation than Dr. Maclean Pea. We almost venture to hope that with his success he will be generous, and enable all Pea lovers to afford to possess a supply of this fine variety; and if it flourishes equal to its present doings at Slough, they will have an acquisition in the shape of Peas which will enrich their vegetable collections, rich as they may have been before. We take leave of this Pea by saying it is the finest variety we have ever seen growing, and in quality we cannot name a better sort.

But while at this nursery we must give a passing glance at some other of its occupants. Pre-eminent just now are the *Carnations* and *Picotees*, of which perhaps Mr. Turner holds the finest collection of the day. Through all the varying phases of fashion these fine garden flowers have been cherished, preserved, and improved. And glad we are to note that they are rising in public estimation, and that the demand for them is every year increasing. No flowers of the garden are more intrinsically beautiful than are these, and with their beauty is blended sweetness. They are hardy, and of easy culture. When in bloom they are exceedingly handsome, and even when out of bloom the plants neither look seedy nor weedy. No wonder that their cultivation should spread, and it is surprising that they should be affected by any decorative fashion of the hour. For the benefit of those who cannot choose for themselves we name a few in each section—the cream of an exceedingly valuable collection—as possessing undoubted merit, and which may be grown with confidence.

**CARNATIONS.**—*Scarlet Bizarres*: Campanini, Dreadnought, Fanny Gardener, Guardsman, Mars, Mercury, Eccentric Jack, Marshal Ney, Rifleman, Purity, Albion's Pride, and John of Gaunt. *Purple Flakes*: Dr. Foster, Earl of Stamford, Ajax, Mayor of Nottingham, Florence, and Ascendant. *Scarlet Flakes*: Mars, Superb, Annihilator, Mr. Battersby, Sportsman, and Splendour. *Rose Flakes*: John Keet, Christigala, James Merryweather, Sybil, Phœbus, and Mrs. F. Burnaby. *Clones*: Hindoo, Prince Arthur, Bride, Albert, Cremorne, Maiden's Blush, King of Yellows, and Géant des Batailles.

**PICOTEES.**—*Red-edged*: Mrs. Norman, Princess of Wales, Mrs. Horaby, Leonora, Miss Small, J. B. Bryant, Peeress, and Mrs. Keynes. *Purple-edged*: Cynthia, Venus, Chanticleer, Alliance, Mary, Mrs. Little, and Admiration. *Rose and Scarlet-edged*: Mrs. Fordham, Edith Dombrain, Mrs. Allcroft, Miss Sewell, Juliana, Miss Wood, Ethel, and Regina.

This is a short but select list of the flowers as seen in perfection, and if justice is done them in culture they cannot disappoint.

**PERLONIA** of the Show and Fancy section are another speciality of this nursery. For a time the Zonal section absorbed primary attention, and there was a subsidence in the demand for the class we are noticing. The two sections are so thoroughly distinct that it is almost absurd to think of one being in any way a rival to the other. Neither is it so now, for the demand for both is rapidly increasing. Than the Show and Fancy *Perlonias* no more beautiful greenhouse plants are to be found in cultivation. It is superfluous to say that no one grows them better than does Mr. Turner; that is admitted, and we can better utilise space by noting a few of the very best for the information of others who are contemplating the culture of these plants. The blooming period is now over, and the plants are being cut down and placed in a light house to break. The cuttings are being struck in sandy soil also in the same house. The varieties have been seen at the principal exhibitions, and we note a few of the best of them.

The new sorts are an exceedingly fine group, Crown Prince being perhaps the best, followed by Constance, Archduchess, Isabella, Queen Victoria, Presbyter, Sultan, Dauntless, Alice, Duchess of Cambridge, and Sybil. Those are all varieties of high merit. From the general collection we select Ruth, Favourite, Duke of Cambridge, Claribel, Highland Lassie, Iron Duke, Blue Boy, Coronet, Conquest, Great Mogul, Lord Byron, Mabel, Prince Leopold, Protector, Scottish Chieftain, Statesman, Prince Arthur, Purple Gem, Victory, and Pompey.

The newest Fancies—Atlantic, Henry Bailey, Jewess, Lady Mayores, Mrs. Hart, and The Shah—are all of very superior merit; and amongst the best of the older varieties may be noted Ellen Beek, Agrippa, Fanny Gair, Vivandière, Princess Teck, Marmion, Mrs. Alfred Wigan, Victor Hugo, and Excelsior. Triomphe de St. Maude and Queen Victoria are the most striking of the French section, the variety last named being remarkably bright. The above list is a very choice and reliable one.

**ROSES.**—These are only noticed to say that the majestic plants which have achieved so many triumphs have just been spotted, and are kept under glass to make their growth. So many growers of pot Roses do not repot until the autumn that we note the practice which is adopted in the culture of some of the finest plants which have ever been perfected. We also note as bearing on the soundness of Mr. Cann's views that the whole of the Roses which Mr. Turner has this year exhibited are the produce of cut-back plants. Up to this date, July the 17th, Mr. Turner has not commenced to cut from his

maidens; fine blooms are ready, but are being injured by the incessant rains.

We cannot detail the condition of the extensive and fine collection of pot Vines and the collections of plants generally; it must suffice to say that they are in the first order of health, and that the entire establishment is in a high state of keeping.

## NOVELTIES IN THE ROYAL GARDENS, KEW.

**EURYANGIUM SUMBUL** is flowering in the Herbaceous ground for the first time in this country, and a more important plant from a scientific point of view has not flowered since the *Rheum officinale* of last year. It yields the drug known as "*Radix Sumbul*," which about the year 1835 was first introduced to Russia as a substitute for Musk, and then recommended as a medicine against cholera. It was first known in England about twenty-five years ago, was included in the British pharmacopœia in 1867, and is now prescribed in tincture form as a stimulating tonic. The species yielding this drug was not known till 1869, when a plant flowered at Moscow, received from the mountains of Maghian eastward of Samarcand, which proving new was named and described by Kauffmann. Its root only appears in commerce, cut into transverse slices an inch thick. The musky smell of the resin is strong and agreeable, but is not fully developed until after contact with water. The root of this specimen is fusiform in shape,  $3\frac{1}{2}$  inches in diameter near the top, with a flowering stem nearly  $8\frac{1}{2}$  feet high. The leaves are now dead; they were much-divided and similar to some species of *Ferula*, to which genus this is closely allied. Its cultivation is not difficult, though in pots it will apparently not succeed, as the leaves die off on the slightest check. In the open ground, however, where the roots are free it does well. Sandy loam should be prepared, intermixed with stones, and the plant should be placed on a small mound so as to be a little above the ground level. It is evidently accustomed to a dry season of rest, it is therefore necessary to cover with a handglass during winter. A mulching of litter is beneficial in summer. The roots do not branch, and when at rest may be sent to a distance in the same way as a bulb.

In the Orchid-house porch, near the Carnivorous plants, we observe the very rare and pretty *Sarmienta repens*, which though small is covered with flowers. It is much like a diminutive *Eschynanthus*, and has the same habit. The flowers, it has been aptly observed, are like *Mitraria coccinea*; they are, however, a little reduced in size. We know of no one cultivating this plant but Mr. Wheeler of Warminster, who is very successful in its culture. It is a native of Chili and Peru, and does best on a shelf near the glass. In the choicest collection of greenhouse plants this should be included. It would be especially useful for baskets, and perhaps rockwork. We believe that a greater number of Chilean plants are hardy, or nearly so, than is supposed, and therefore we should recommend a trial of this plant out of doors in a sheltered position. It has been included among stove plants, but there it is certainly not in its proper place.

On the Rockwork some *Orchidaceæ* appear to do well. *Orchis latifolia* var. *speciosa*, a large form from Morocco, is very handsome. *Orchis latifolia* var. *sesquipedalis* and *O. foliosa* are also good. The Man Orchis (*Aceras anthropophora*), a rare British plant, has been in flower for the last two months. Here we are glad to see healthy plants of the blue *Meconopsis Walli*hi, of which we gave a figure last year, and another species *M. simplicifolia*.

Noteworthy as a rarity, though not now in flower, is *Arnebia echioides*, which we believe is the only plant now in the country. It is of neat habit, and has scorpioid spikes of yellow flowers with five purple spots at the throat. It belongs to the *Boraginaceæ*, and is native of the Caucasian Alps and Armenia.

Among other interesting plants in flower may be mentioned *Svertia perennis* with peculiar purplish blue flowers; *Sedum obtusatum* with foliage much like *Echeveria pumila*, but with yellow flowers—it is quite a distinct species and is yet rare; *Saxifraga mutata*; and a hybrid of which it is one of the parents, the other parent being *S. aizoides*.

## THE NEW DISEASE OF POTATOES.

Now that the subject of the new disease (not new with me, having noticed it here for four years) is being discussed, every hint and observation leading to the discovery of the root of the evil is of value, for as physicians say, "knowing the disease is

half the cure," so with our horticultural diseases. Now, my own observations respecting these Yankee Potatoes are, that the nearer we can bring their cultivation to that of their native country the less liable they are to disease, in proof of which I have here eight rows of American Early Rose and one of Snowflake planted in a warm and sheltered kitchen garden, soil deeply trenched and heavily manured; they have made very robust growth and formed good tubers, with no signs of disease. In a field I have one acre of Early Rose; this land also received a fair coat of manure last autumn, but the soil is very shallow, and here about one-twelfth is gone off. In a field not far from mine a still more striking example may be found. About half an acre is planted with Early Rose; one part of this half acre was manured, the other half received none. The part manured have grown well, and are looking healthy and strong, with very little signs of disease; the part not manured came up weak, grew slow, and I do not think one root will escape; so from these facts I consider they want to be grown quick, for which they require a good soil and warm situation.

In regard to Sutton's Flourball Potatoes, my experience goes to prove that they are not subject to the disease. I have grown them in quantity four years, and this year I have about one acre of them, but I have failed to discover any trace of disease upon them, and they have also proved themselves with me to be more proof against the old disease than any other variety I cultivate, and I find it also the best-keeping variety, having it now in fit condition for the table.—JOHN GREEN, *Nerwich*.

My crop of Potatoes is ruined and is quite worthless, so I for one have good reason to believe that the disease, be it new or old, is a serious visitation. As soon as the tubers commenced to form the stems commenced to wither, eventually blackening to complete decay. They are about the size of rifle balls, and have not moved for the past month, and will evidently not become any larger. In some cases the old sets are sound, and in others they are rotten. The failure is complete, and the total value of the crop will not equal the value of the seed Potatoes which were planted. They are American varieties. I send you a sample, and perhaps you will be able to say whether it is the "new" disease or not. It is idle to ask for a remedy, for the evil is done, and is manifestly irremediable.—S. H., *Essex*.

[The disease is identical with that which is so extensive at Chiswick.—EDS.]

### INFORMATION ABOUT PEARS.

I ENTIRELY agree with Mr. Taylor as to the importance of this matter, for there is no hardy fruit equal to the Pear in value or utility—value for the varied and delicious flavour of so many kinds, and utility for the length of time which a good selection will afford a succession of choice fruit for the table. It is precisely the want of local information that proves such a stumbling-block to one in planting Pear trees in a new place, especially when space is an object or when it is a commercial speculation.

There is no fruit so difficult to "hit off" as the Pear, fruit of the same sort being very different in two gardens a slight distance apart, and even from a couple of trees in the same garden; and therefore for any information to be really useful it must embrace the most minute details of soil, situation, and culture. Tables similar to the example given by Mr. Taylor would prove of the greatest value, and I should be happy to assist in so useful an undertaking so far as a collection of young trees would enable me to do so; but the work should not stop at such a point, which is in reality only the beginning. All who can should deal with the subject more at length, and by enriching the pages of the Journal with fruit lore strive to render it the best guide in this as in all other branches of horticulture.

One of the best aids towards the accumulation of such facts is a fruit book, in which every tree is entered, with a suitable space left after each name for brief annual notes. The memory is treacherous, and if trusted to entirely many little points of considerable importance are apt to be forgotten. Of course when the trees number only a few dozen a book would hardly be required, but when the collection amounts to several hundreds it is really indispensable.

Mr. Taylor is doubtless fully aware that the weeding process of "eccentricities of taste" which he contemplates would prove a difficult affair. By what standard does he propose to

try them? Surely the decisions, or rather excisions, must be ruled by weight of numbers and not by mere individual opinion, than which nothing differs so widely. For example, I cannot agree with him in his estimate of Duchesse d'Angoulême and Beurré Clairgeau. The Duchesse is certainly sometimes insipid, but I would not condemn a really excellent kind for a failing which is only developed under circumstances preventing a better state of things. Beurré Clairgeau has proved so good with me from trees upon free stocks that I planted a dozen more of it last season, and I have it now trained to walls of east and west aspects, horizontally and as oblique cordons, as well as in the pyramidal form in an orchard. It is an undoubted fact that the fruit of this Pear is frequently deficient in richness, and is therefore comparatively worthless in many gardens, notably in cold heavy soils, but in light soil it answers better, and is often as excellent in flavour as it is ornamental in appearance. Both kinds would probably be classed as doubtful and uncertain, and I much fear that the sorts which must be so classed will always prove greatly in the majority. However this may be, there can be no doubt that an immense amount of good would result from such an inquiry, and a mass of reliable information be accumulated, which would not only prove of the greatest assistance to the regular practitioner, but would also impart confidence to the amateur upon a matter concerning which he has so long been beset with hesitation and doubt. In a word, it would tend to render Pear culture far more popular than it is at present, and we should find that space would gladly be afforded to many highly meritorious varieties hitherto comparatively unknown as well as the Jargonelles, Bon Chrétien, and half a dozen other kinds which have so long reigned pre-eminent in many small gardens.

Information is also much wanted about the effect of the different stocks, especially upon the fruit, in its quality, quantity, and how soon after planting it is freely produced, so as to ascertain which sorts may be depended upon for coming quickly into bearing while the trees are young—a matter of considerable importance, especially in a new garden, where it is desirable to secure some return as quickly as possible for the heavy outlay that is usually incurred in the planting.—EDWARD LUCKHURST.

### LATE PEAS.

I HAVE nothing to add except that my district is a dry one, the average rainfall being 20 inches.

In 1868 I gathered ripened Peas of Carter's First Crop, and sowed them the same day in trenches, and gathered green Peas from them in October, but they were not so good as were those from old seed sown on the same day. The old seed came up the first and the most regular. Neither of these were half so good as was Ne Plus Ultra, gathered throughout November of that year.

Ne Plus Ultra and Auvergne are the best dry-weather mildew-resisting Peas we have. Sown in trenches and deluged once a week, using salt in the water at the rate of half an ounce per gallon, I have not failed to have frequent dishes of Peas throughout November for the past seven years. It is not a question of Peas versus Scarlet Runner Beans. Supply a dish of Peas two or three times a week in the autumn, and the Beans will be the more relished for the change.

As Mr. Robson is interested, I will, on a future occasion, give my experience of growing other vegetables in trenches, beginning with Potatoes. I may add that if in this northern latitude our summers are dry, our autumns are generally wet, and perhaps the rains may set in earlier than they do in the south, and herein we may have an advantage.—A NORTHERN GARDENER.

### THE RESTING-SPORES OF THE POTATO DISEASE.

MR. A. F. BARROW of Chiswick, to whom I am indebted for many specimens of diseased Potatoes, in recently writing to me as to the present aspect of the murrain described the attack as the most virulent of all he had seen. In some plants at the present time the leafstalks suddenly lose their hold, the leaves tumble off, and the plant rapidly disappears. The disease put in its unwelcome appearance a month or six weeks earlier than usual, and the first diseased foliage which came under my notice for examination was received from one of the correspondents of the *Journal of Horticulture* at the beginning

of June. In those leaves I detected the mycelium and a few fertile threads of the obnoxious fungus which always accompanies, and probably causes (judging from its effects) the Potato disease. The reason why competent observers believe the fungus to cause the disease is simply this: If the spores are allowed to fall artificially upon the leaves, or even stem or tuber, they burst and grow, and wherever they burst (their contents being extremely potent and corrosive) they immediately bore a hole through the skin and enter the plant. Of course the spores eat their way into the plant in the same unceremonious manner when they fall naturally upon it; and if leaves are kept under observation it is invariably seen that wherever the damaging mycelium of the Potato fungus runs, there, and there only, the Potato plant is discoloured, burnt up, and corroded as if some poisonous acid had been introduced into its system.

Soon after I had thus early detected the true Potato fungus in the specimens sent from the office of this Journal, Mr. Berkeley, at the meeting of the Royal Horticultural Society held on June 16th last, directed the special attention of the gardening public to the early and extremely virulent nature of the disease. At the same time he said he had detected a fungus new to him in the tissues of the Potato leaves, which he referred to a dubious class of fungi always found growing within the tissues of plants, and named *Protomyces*. In my search for the latter body I met not only with the presumed *Protomyces*—really the mature resting-spore—but also the male and female organisms which gave it birth. How this arose was detailed in the paper read before the Royal Horticultural Society, and printed in last week's number of the *Journal of Horticulture*. I am disposed to entirely account for the excessive virulence of the disease this year from the fact of these resting-spores being prematurely formed in the substance of the young plants. They are embedded like cancers in the tuber, haulm, and foliage; and in whatever part they are seen, there the cells of which the Potato is built up are corroded and destroyed. On the application of moisture to the plant, as supplied naturally by the atmosphere or artificially by watering, this spawn within the plant starts into renewed life to further poison the tissues, produce fresh spores for the present season and resting-spores for the next.

With a little attention it is quite easy for any person of ordinary ability to understand the nature of the Potato fungus and how it affects and destroys the plant it lives upon. From the smallness of the parasite it is almost invisible, but its smallness is compensated for by the habit it has of so rapidly increasing, that one infected plant on a given spot will in a day or two cause the fungus to appear on every plant in the neighbourhood. Because it is small it must not be considered impotent or disbelieved in. The aphid is small, but none the less destructive; and it is quite as unreasonable to refer the Potato disease to wireworms and other insects, as for some dim-sighted person to deny the damaging effects of the aphid because he could not see the insects, and charge rats with the damage because he happened to see a rat—an animal he *could* see—wallowing about amongst dead plants.

A word may here be said about certain words and terms used in the description of various organs and structures of plants. It is really melancholy to find writers who ought to know better attempting to cast ridicule on the things they cannot understand. One writer strong in wireworms and rats may be found laughing at the pest which for good reasons is supposed to cause the murrain, simply because he cannot understand or see it, but the most short-sighted person can of course see a big insect or a four-footed animal. Insects are always attacking Cabbages, Turnips, and other kitchen-garden plants, but no one has ever yet seen a Cabbage or Turnip with the Potato disease, although it is common to see both and all similar plants with the wireworm.

A friend of mine, too, has recently acknowledged in print that "ordinary capacities are staggered on the very threshold" of the paper you printed last week by such words (amongst others) as "cellular tissue" and "mycelial threads." Now, surely, this is a libel on the gardening fraternity at large, for if there are any men of "ordinary capacity" who buy and read the horticultural papers and don't know that the spawn of a fungus is composed of "mycelial threads," and that a plant is entirely built up of "cells" packed together and called cellular tissue (and tubes called "vessels"), then I venture to say the time is fast approaching when such men will have to retire from the honoured ranks.

I have engraved the accompanying figure of the Potato

fungus in its new aspect, so that all readers of the *Journal of Horticulture* may, if they try, thoroughly understand its nature and effects. First of all it must be remembered that the Potato plant (like all other plants) is principally built up of cells, called "cellular tissue." The present figure is a greatly enlarged view of a small piece of Potato stem. Now, I have little doubt every reader of this paper well knows that a Potato stem is not like a solid piece of iron, or marble, or glass, but that it is principally built up of a number of cells filled with fluid, which when enlarged in size look like the cells of a honeycomb. These honeycomb-like cells are almost invisible to the unaided sight, but when they are greatly enlarged by a good microscope they are seen exactly as at A on the accompanying engraving. The Potato fungus is principally seen on the other side of the illustration, and everyone who looks on the figure will observe that if the cells are next to invisible without a glass, how much more so must be the threads and spores of the fungus, which are drawn to the same scale.

The Potato fungus is principally composed of threads, called "mycelial threads" or spawn, s s. These threads are poisonous to the Potato plant, and wherever they go they scorch and dry up the cells of which the Potato plant is composed. The threads branch in various directions, and the branches bear "simple spores," or seeds, at their tips, o c c. These spores when ripe fall from the threads, burst, enter the plant through the skin or breathing pores, and make fresh corrosive threads, which soon produce a new generation of spores. At the ends of some of the branches it is common to see spores of a different nature, d d. These are called "swarm spores" because they are many times bigger than the simple spores, and contain within themselves a swarm of spores. On the application of moisture the skin of this large spore bursts and sets free, instead of one, a "swarm" of nearly twenty spores. These fall again on the plant, burst, enter the skin, and send out corrosive threads into the tissues just like the last-mentioned; but they differ from the simple spores in a remarkable way, inasmuch as each individual of the swarm is furnished with two lash-like tails, x x. With these tails they whirl themselves about in moisture, spin round and round, and dart about in different directions with the greatest rapidity like animalcules (for this reason they are called zoospores, because they are partly animal-like). It will be seen from this that when in moist weather the wind cannot carry the infection by the simple spores, the moisture supplied to the Potato by dew or showers enables these animalcule-like zoospores to propel themselves in different directions from one plant to another.

The above contains the pith of all that was known about the damaging Potato fungus till this year, although it has from the first been suspected that the parasite had some means of living during the winter, or how could it appear with such regularity every summer? This winter life is now understood, and it may possibly prove one step towards the extirpation of the pest. The two sorts of spores above described are very fragile and short-lived. If they do not fall upon the Potato plant or some close ally they speedily perish, but if they do fall upon the Potato plant they speedily kill it, and they and their mycelial threads perish with the victim.

The Potato fungus lives through the winter in the ground, and resides during this period in a state of sleep or hybernation within a "resting-spore," as it is called, because this sort of spore when mature does not burst and enter the plant, but it surrounds itself with a hard coat (at the Potato plant's expense), and falling to the ground with the dead haulm, leaves, and tuber, quietly rests in the ground till the following summer.

This resting-spore is brought into being in a different manner from the simple spores and zoospores, and this is how it is done: Instead of spores, two different-sized bodies arise from the threads, one a globular semi-transparent organism, similar in nature to the ovule of a flower, r r; and another much smaller and similar in nature with an anther and its pollen, c c. In a somewhat similar manner to the anther coming in contact with the stigma of a flower, these two bodies come together, and the material contained in the smaller body is discharged through a minute tube into the matter contained in the larger one. This action causes the larger body to secrete a new coating as at x, and afterwards become a fertile resting-spore. As it grows it speedily disengages itself from the thread which has borne it, s s, and it falls to the ground with the dying plant, and rests in the earth like a seed.

Judging from the nature of other resting-spores, the resting-spore of the Potato disease at first germinates in the earth like Dodder, and if (again like Dodder) it cannot find a fit plant to grow upon it speedily perishes; but should a Potato plant be in the vicinity, the poisonous threads of the resting-spore reach it, find their fitting food in it, and doubtless as once enter the skin, as the threads from the more fragile simple spores and zoospores are able to do. When these threads

Fig. 2.—THE POTATO FUNGUS AND ITS RESTING-SPORES,  
Taken from the Stem of one of the Chiswick plants.

once get in or on the plant they speedily produce the simple spores just described, and these get blown amongst the Potatoes in every direction, and the regular recurrence of the disease is the result. The conclusion of the sad history is this, that when the plants are prostrate and on the point of death they become the prey to insects, as Mr. Berkeley thirty years ago pointed out. In the same way the noble lion is preyed upon by baser animals when weak and dying; but Potatoes are not



vanquished in fair fight with wireworms any more than the king of beasts is beaten by a jackal.

Any suggestions as to the cure of the disease may well be reserved for another time. It does not, however, follow that because a man knows the nature of a disease he can cure it. The complete knowledge of a disease often only assures the doctor of its perfectly insurable character, although it would be premature to say that nothing can be done to mitigate the Potato murrain.—WORTHINGTON G. SMITH.

### DRYNARIAS.

BEAUTIFUL and elegant stove Ferns are the Drynarias. They are by their distinct features worthy of cultivation wherever graceful plants of chaste form and quiet colour are cherished.

They are of a class which possess a sober airy beauty and are attractive in themselves, and they also, by contrast, bring out the charms of other plants to greater advantage. Plants whose principal beauty rests in the form or colour of their foliage rather than the mere brilliancy of their flowers, are now sought for with considerable zeal. It is commendable, too, for the beauty of such plants is not transient, but is ever growing, and is continually refreshing and lastingly attractive. Of this nature are Ferns, and of these the genus *Drynaria* possesses claims to cultivation.

The Drynarias are not to be seen in every collection of Ferns, yet for the various purposes to which this class of plants are devoted some of the species might fitly play a part. If a pendulous basket Fern is required *D. diversifolia* is particularly suitable, its beautiful green pinnate fronds, from 2 to 3 feet long, being very ornamental. *D. acronans* is a plant of more noble aspect, its fronds being large and spreading; it is worthy a place in all ferneries of any extent, and makes a nice specimen for exhibition. *D. quercifolia* is a distinct and attractive species.

Most of the Drynarias are suitable for planting on rock-work, their creeping rhizomes clinging to rocks or roots in a natural manner, from which the fronds spring freely. When grown in pots they should be potted high, and the rhizomes merely be pegged on the surface. They require a stove heat and moist atmosphere. The fronds of some of the species are contracted and fertile in the upper part, the lower fronds being distinct and barren, which gives to the plant a peculiar yet agreeable appearance, and adds a feature to their interest. This is well shown in our illustration, which is of one of the best species.

AMERICAN BLIGHT.—If "AGRICOLA" will mix in water quicklime and salt, and apply it with a brush, rubbing it well into the cracks, it will completely free his trees. It will, moreover,

free the trees from mosses, which favour the woolly aphid.—W. F. BADCLIFFE.

### THE POTATO CROP IN THE NORTH-WEST OF ENGLAND.

In the Potato districts of north-west Lancashire, Cumberland, and Westmoreland the present prospects of the crop are very cheering. Last year the disease in those districts was almost nil, so much so that in all the principal markets good sound tubers were sold at 6d. per stone of 14 lbs. This year a diseased Potato is scarcely to be found amongst the garden sorts, and field Potatoes up to the present time look very promising. Although we have had rather more than an average of rain, yet it has not been accompanied by intense heat, which

usually, following upon liberal rains and aided by rich manures, produces rot or disease in the Potato. My old opinion, some time ago enunciated in the columns of the Journal, remains still the same, that the disease in Potatoes may be arrested and overcome by simple and natural means—namely, by the use of moderate quantities of manure and the avoidance of rich stimulating manures, the following-up of the use of which have rendered both the soil and the tubers rotten.

Up to this time we have fortunately been free from the curl spoken of in the southern districts, and new Potatoes are selling in our markets at 10d. per 14 lbs., and it must be remembered that the season for them is with us only fairly commenced. By breaking up new Potato land, and allowing the old rich soils to exhaust their rottenness and regain their original state—by the use of almost dry farmyard manure, and by eschewing rich manures, which induce rottenness of both soil and Potato sets—a very few seasons would enable this useful ascendent to regain its former health. In all the vegetable products of the garden and the farm we have a

very plentiful season; and though some gardeners may regret that we have not had a sufficiency of warm sunshine to fully ripen fruit, yet we have more than compensating advantages in the enormous crops of both fruit and vegetables of every description, and the work of giving support to overladen trees has to be performed in every garden and orchard.

From the commencement of April up to the present time we have had constantly recurring showers alternated by days of sunshine, whilst ever and anon a day or two of winter-like severity would arrest too free growth. On the evening of Wednesday, the 14th inst., a cold east wind prevailed, which reminded us strongly of October. It continued throughout the night, but was banished by the next day's bright sunshine. The hay crop, a good breadth of which is now under cover, is the heaviest known for many years. Up to this

Fig. 10.—*DRYNARIA ACRONANS*.

time the food prospects for both man and beast are especially promising.—BETA.

### CHIPPING NORTON ROSE SHOW.

CHIPPING NORTON had never been associated in my mind with anything horticultural save James Betteridge and his Asters. It will henceforth be associated with the recollection of as pretty a little Rose Show as I have seen this season, with as enthusiastic a set of florists as I have met with for some time, and with people as hospitable and genial as, even amongst horticulturists, anyone might wish to be thrown into contact with. In order to prove my position let me, then, endeavour to describe their Rose Show, bearing in mind that it is a quiet inland town with about four thousand inhabitants. Now I do not call to mind any town of a similar size which, in addition to its ordinary horticultural show, goes in for a Rose show exclusively. Wimblesbury adds stove and greenhouse plants to its list of exhibits. Exeter is a city, and so is Hereford, and therefore do not stand in comparison with it; and this, I think, is a proof that it has an enthusiastic set of florists. The Committee offered upwards of £40 in prizes, and of sufficient value to tempt such growers as Messrs. Cranston & Mayors of Hereford and Mr. Prince of Oxford to come forward, while the amateurs of the neighbourhood mustered in considerable strength.

The Show was held in the charming grounds of The Mount, the residence of Mr. Wilkins the Mayor of Chipping Norton; and the tent in which the Roses were placed was well filled with excellent stands of blooms. Messrs. Cranston & Mayors's lot of forty-eight was remarkably fresh, and the blooms in it were large without being coarse. The usual fine Roses which one looks for in every stand were of course to be seen here, as were also Ferdinand de Lesseps, good; Madame Lacharme, clear and fine; and Sir Garnet Wolseley, rich and good in form. Mr. Prince's Roses were fine but coarse. It would seem from what I have seen that the seedling Briar has the tendency to foster coarseness, and will probably require less manure and less strength than the Manetti. There were some grand blooms of Claude Levet in Mr. Prince's stands. Mr. Corp of Oxford was a good third.

The keenest point of interest about the Show was evidently the contest for the cup given for twenty-four blooms in the amateurs' class, and which was awarded after a very close contest to Mr. Julius Sladden, the son of as staunch a florist as ever lived, well known to the horticulturists of the past as "A. S. H." the editor for many years of "Gossip for the Garden," and one of the earliest and most successful amateur cultivators of the *Gladiolus* in England. It is a pleasant thing to see the son treading in his father's footsteps, and it was no small pleasure to me as his old friend to award him the cup. His stand was a very even and creditable one, but he was run very close by Mr. H. Wilkins, in whose stand were some blooms much finer, but more than counterbalanced by those two wretches Henri Pages and Reine du Midi, which are well nigh sure always to deceive an exhibitor; their colour so soon flies, and they so soon become flaccid. In Teas a very beautiful box of smallish blooms was exhibited by Mr. Prince of Oxford, amongst which Comtesse de Nadailac and Marie Van Houtte were conspicuous. The premier prize for the best single Rose in the amateurs' class of twenty-four was awarded to Mr. Wilkins for a very beautiful bloom of Général Jacqueminot. How these old Roses are coming to the front this year! There were some pretty baskets and bouquets of Roses shown, but the rigid rule which proscribes any other foliage but that of the Rose might well be modified. Mrs. Betteridge exhibited a beautiful stand of blooms of hardy herbaceous plants, but of these more anon.

In the evening a dinner took place at the Crown Hotel, and after it Mr. Pryer the Treasurer announced his intention of giving a cup next year of the value of five guineas, to be competed for by amateurs. This announcement is another proof of the enthusiasm that exists amongst the horticulturists of Chipping Norton.

After the Show I went to visit the nursery grounds of Mr. JAMES BETTERIDGE. I ought to have done so under any circumstances, if only to apologise for having so deliberately killed him off last year; but I was anxious to see the home of the quilled Asters which bear his name and which he has made so famous. They were not, of course, in bloom, but they gave good promise of an excellent bloom next month, and they must really form a beautiful sight when these large patches of various colours are in flower, on the side of one of those hills which form Chipping Norton. Mrs. Betteridge, the worthy wife of a worthy man, is passionately fond of herbaceous plants, and has gathered together a very nice collection. Amongst those in flower were several fine *Delphiniums*, especially a seedling from *Belladonna* but more vigorous; *Pentstemon Torreyi*, *Campanula salicifolia*, *Veronica spicata* and *spicata alba*, and a dwarf variety of the same; *Campanula Van Houttei*, nobilis alba, and *Hendersoni*; *Spiraea venusta*, *Scabiosa caucasica coronata*, and *Myosotis Impératrice Elizabeth*, valuable not only for its colour, but as coming

into bloom when all others are over. She had also some very nice specimens of British Ferns, and I was glad to find herbaceous plants so well done and so appreciated, and right glad to make the acquaintance of an honest man and a self-taught florist and his good wife. I am sorry to say I saw here unmistakeable proofs of the existence of the Potato disease, of which after this wet July I fear we shall hear much.

Being an early bird I took the opportunity of paying a visit before starting on my home journey to see Mr. Sabine, who is mad enough to prefer hardy herbaceous plants to flouting Geraniums and carpet bedding. Here I found many choice and valuable plants thoroughly at home, and I am not surprised at the favour with which this class of plants seems now to be regarded.

I think, then, that I have proved my position as to the enthusiasm of the Chipping Norton people about flowers; it behoves me to speak but little of the kindness which I experienced both from my kind host the Mayor and his family, and the various officers of the Society; from all with whom I came into contact I experienced the utmost cordiality, and rejoice that amidst this very dripping season they had a lovely day for their Show, and I trust that they may go on still prospering in the adventurous and spirited course they have taken for the encouragement of the queen of flowers.—D., Deal.

### CELERY IN WIDE TRENCHES.

MR. DOUGLAS being a cultivator of such acknowledged ability, everything he says justly carries considerable weight. On page 84 he says, in treating on Celery, that "where quantity is of more importance than quality it is better to plant in wide trenches;" but for Celery of "splendid quality" he recommends the single-row system. Now, I cannot see how a difference in the size of a trench can affect the quality of Celery, but I can easily understand its having an influence on size.

For a number of years I have grown Celery having for the main object quality, and, leaving undoubtedly good judges to decide on its merits, I have had a fair share of success. Now, the Celery which, for table use, has been so highly appreciated has been grown in wide trenches of four rows in each, and the sort Turner's Incomparable. With this sort, and by that mode, I could obtain a greater table quantity of high quality than I could by any other sort or plan. I could grow a larger quantity, using other sorts, but it was quantity to trim away and go to the rot-heap.

Clean, sweet, crisp heads a foot in length are sufficient for a gentleman's table, and big Celery I hold to be as great a mistake as is the aim at big Cucumbers. It is devoting labour, space, and manure to not a profitable end. For exhibition and market purposes the case is different, but for home table use I hold that the best quality of Celery is found in small and not large heads.

The secret of having good Celery is in an abundant supply of water and not earthing-up by dribbles. Celery will blanch in one month as well as in three, and the longer it is earthed the more liable it is to become cankered. Dwarf Celery is more productive of suckers than is the tall-growing Celery, and special care is necessary to pick-out these sucker eyes at the time of planting, and, above all, not to plant deeply.

The blister fly cannot be killed except by hand-picking, but it may be prevented. Watch for the first blister and then keep the plants dusted with soot for three weeks. I have had one row which was not sooted ruined, and those on each side of it almost uninjured. That was to test the effect of soot and to prove its worth. Soot and soot form a capital mixture for Celery—the one conveys food and the other retains moisture. I advise as the most economical mode of growing Celery for table use the dwarf-growing sorts on the wide-trench system.—A SURREY GARDENER.

### POROUS GARDEN POTS.

As the author of the article entitled "Clean versus Dirty Pots," which I communicated to "The Gardener," and which has occasioned the present discussion, perhaps you will allow me to say a few words in reference to an "EX-EXHIBITOR's" remarks in last week's issue on the same subject. In the first place, I may state that I quoted Dr. Lindley, and the adaptability of glazed or glass pots, &c., for plants, to dispose of the common argument that dirty or unwashed pots were unsuitable for plants, because the dirt choked the pores of the earthenware, not thinking of discussing the question of porous versus non-porous pots, believing that question to have

been already settled. Dr. Lindley's words are as follows:—"Experiment has, however, settled the question by showing that plants will grow in glass, in slate, in glazed earthenware just as well as in soft-burnt pots, and it is now admitted on all hands that if plants are ill-grown it is the fault of the gardener, not of the pot, whether it be hard or soft." My own experience, I must say, so far as it goes entirely confirms Dr. Lindley's remarks, and the stress "Ex-EXHIBITOR" lays upon careful watering under any circumstances does the same.

Your correspondent no doubt relates his candid opinion on the subject, and with much that he says I agree; but after reading his paper carefully through it becomes apparent, I think, that he is generalising rather than recording the results of experiment carried out with a definite object; and his attempt to classify those plants that prefer the different kinds of pots is, to say the least, open to criticism. As regards washed and unwashed pots, I must say that after experimenting with both side by side, and under equal conditions, I am unable to note any appreciable difference. I have experimented with such things as Pines, pot Vines, Heaths, Genistas, Acacias, Fuchsias, Cyclamens, Primulas, Ferns, Cinerarias, Balsams, &c., and have, therefore, no vague opinion on the subject. "Ex-EXHIBITOR" says, "The practice of general cultivators is overwhelmingly in favour of clean, well-finished pots as the best for plants generally." Now, though your correspondent makes this his crowning argument, it is a most unfortunate one for his case. "General practice" has been so often and so completely controverted by experiment, that I think it should never be used as an argument at all. I can remember when general practice was "overwhelmingly in favour" of striking bedding Geraniums in bottom heat, until someone proved they did better out of doors; also when it was the general practice to grow Pines three years before fruiting them, till somebody set the example of fruiting them in less than half that time and with much better results; and lastly, up till quite recently it was the general practice and belief that Vines required a temperature of from 70° to 75° to set their fruit, until it was demonstrated that such temperatures were neither desirable nor necessary. In all these things and many more, "general practice" has been quoted, formerly as an argument in their favour, but we now see it was only to mislead, and the pot question will most likely have the same fate.

To return to non-porous pots of slate, glazed earthenware, or iron, &c., I may state that Mr. Thomson of Drumlanrig grows a great variety of stove plants in glazed pots with perfect success, and contemplates extending the practice to all his moist houses to save washing, the price of the pots being the only obstacle apparently to his using them generally. The writer can testify that Mr. Thomson's stove plants were marvels of good health before he discarded the common pot, and he is not likely to adopt a less successful practice, one would think. The same cultivator states that tree Ferns and other plants are to be seen thriving well in galvanised-iron tubs in the Kibble conservatory at Glasgow, and reminds us that a former successful prizetaker at the London Pelargonium shows grew his plants in slate tubs. I have seen first-rate examples of window plants grown in glazed teapots, jam jars, and such like.

The Camellia is perhaps as fastidious a plant to grow in pots as any, and it does well enough in non-porous pots. Most of the fine Camellias at Dalkeith Palace grew in slate tubs when I was foreman there under Mr. Thomson, and they had been confined to these tubs for years, and are yet for anything I know. At the same place I had also charge of one of the finest and most extensive collections of Cape Heaths in Great Britain, and can therefore say something about their watering, which "Ex-EXHIBITOR" considers a critical matter; and I am prepared to maintain that if such a plant is apt to be overwatered in a slate pot, it is more apt to be under-watered in a porous one, for I have seen more Heaths injured from being stinted of water than from any other cause. I discovered this in the course of daily practice in the Heath house and the nursery pits. During summer all the soft-wooded species used to be put out of doors behind a north wall to prevent too much evaporation from the pots, and the smaller plants were plunged in ashes for the same reason, and always with the best results.

As regards Orchids, I am not aware it has been proved that such varieties as prefer pots will not do well in glazed pots. Will your correspondent state where the experiment has been made, and when? My object originally in stating that I considered

a dirty pot was as good as a clean one for a plant, was to lessen the hesitation against using the former when the time lost in washing would be a questionable gain. Where I was a learner all pots were washed, even for the bedding plants, which amounted to something like 150,000 in number, and the time occupied at this work was enormous. For such stock washing is never thought of here—not even dry scrubbing, unless the pots are very bad, and our bedding stock looks always as well as any other that I see; and as regards other subjects, what on wet days do not get washed are left undone; for we still wash, but chiefly for appearance sake, where the pots are seen.—J. SIMPSON, Wortley Hall.

## SHADING AND TEMPERATURE.

As the subject of shading is at no time so important as after a period of dull weather, and as the danger of injury by the sun's rays is then greater than at any other time, the following able remarks, which we abridge from "The Gardener," will be seasonable:—

"We are glad to observe that differences of opinion are cropping up here and there, now and again, in the horticultural press, as to the necessity or non-necessity of shading certain plants and fruits from tropical countries when grown under glass in this variable and comparatively sunless island. Opinions and directions the most opposite are expressed and inculcated by different writers, all of whom may be—and we are inclined to think are right—looking at the question of shading from their own several stand-points. There cannot be a doubt that the less some plants—we shall say, for instance, the Pine Apple—are shaded in this country the better, and the more shall the absence of any artificial shading correspond with the conditions of its native home. But then there are other conditions which are also so thoroughly artificial, and in some respects injurious to combat and counteract, that we hold with the opinion that at certain times, and especially in certain localities, the slight shading of Pines is a positive advantage.

"We can understand how a most successful cultivator of the Pine Apple who has never practised, let us say, north of London, should ridicule and condemn the idea of shading a house full of young growing Pines so early in the season as April and May. He has practised only in the sunny south, and has not had any experience of fruit and plant culture in the more fitful and cloudy weather of the north; and paradoxical as it may seem to some of our readers who have not practised under both such conditions, we unhesitatingly affirm that shading Pines, for instance, is more necessary in a Scotch valley, where cloud and mist prevail, than in a county, say, south of London, where such a state of the atmosphere is more rare, because the sunshine is more steady and fierce. But to cite localities so far apart is not necessary. When we grew Pines under the more steadily sunny sky and clear atmosphere of East Lothian—which, by the way, develops the colour of flowers to a purity and brilliancy we never witnessed elsewhere—we very rarely or never shaded them; but on coming to the region of cloud and mist in Upper Nithsdale, we very soon found that Pines would be ruined if we did not resort to more shading than ever we had applied before. And how does this happen? the cultivator of the south may ask. It happens on this wise. In the one locality there prevails a comparatively steady sunshine and clear atmosphere, and under these favourable circumstances Pines begin and continue their growth; the tissues of the plants are in consequence built up in such condition that sun does not brown or stunt them. Under the influence of dull wet weather that sometimes continues for weeks, the plants, in spite of anything that can be done, if they are to grow at all, make a growth comparative soft and watery, and to the inexperienced eye look well; but out comes Sol with a sudden steady blaze for some days, or even weeks, two or three days of which turn the green leaves, that may not have seen his face distinctly for weeks, into a foxy brown that curve and turn up into something like spouts of brown vegetable fibre, and the result is that their growth is seriously checked. To obviate this, the effect of sudden and bright sunshine after a continuance of dull damp weather, the sun's power must be broken and not allowed to act on the plants that are ill-prepared for so sudden a transition; and slight shading is therefore applied for some hours during the hottest part of the day, and is discontinued by degrees as the plants become inured and benefited instead of injured by it. Shading is an evil, we admit, but in the choice of evils it is the least of two; and if those who have not practised under these circum-

stances can tell how to do without shading, it would be regarded as a triumph over unfavourable circumstances. Until they can do this they ought to modify their condemnation of shading material in the case of not only Pines, but Melons, Cucumbers, &c.

"Looking at the practice of hothouse-shading in general, it strikes us that there is not a little that calls for alteration or reform. One learner does not shade his Pines under any circumstances, because another and more advanced looks at shading from one point of view and condemns it, and so the former has his Pines browned and stunted into the very picture of misery, and he wonders what is the matter. The latter founds his instructions primarily on the fact that the Pine is a native of a far brighter climate than ours, and partly from his own experience under more favourable circumstances, and forgets that circumstances may very much alter cases. Then, rushing to another extreme, Orchid houses and plant stoves are shaded with some thick dark brown material laid in close contact with the surface of the glass, that gives very little air and far too much heat, and so suffocates the plants till they become not healthy growths, but mere attenuations of vegetable tissue, and yield a very small proportion of weakly blooms. A very important step has been gained in a better knowledge of the temperatures suitable for plants which come from the higher altitudes of very hot countries; but it strikes us that we have fully as much yet to learn in reference to the amount of light, and shade, and air, which many of our hothouse plants will not only bear, but from which they will be actually improved and invigorated. The general dissemination of data on this point is manifestly defective. At all events, shading, as practiced in many cases, must be regarded as an evil carried to unnecessary excess; and there can be no doubt a more moderate application of the principle would result in improved cultivation. A thick dark-coloured shade is rolled on in close contact with the glass; from its texture it excludes too much light for the generality of Orchids and stove plants; from its colour it absorbs instead of reflects the heat of the sun, and so the object of keeping down the temperature of the air enclosed in the house is frustrated; and from its close contact with the roof it almost hermetically seals it, except at the ventilators proper, which have to be unduly opened to keep down the heat, and the consequence is a violent rush of air and moisture in one direction, which is most objectionable. Look at Orchids under so dense a shade and in so stewing an atmosphere, and it will be found that such as *Vandas* make weakly, long, drooping leaves, and next to no bloom-spikes. Now, if a light-coloured and thinner texture were used for shade, and it were at the same time raised a few inches off the surface of the glass so as to admit of an intermediate current of air, the temperature inside would be kept cooler, and the ingress and egress of air would go on at the lapse more, and there would be less cause for a violent rush of it at any given point, and a better atmospheric condition would be the result.

"Indiscriminate and constant shading of certain numerous plants the whole summer has long been a fashion, and is a practice manifestly open to question. The object of shading our too often very small glass houses is certainly to modify temperature and evaporation as well as light; and it may not be too much to say, that if the former could be more fully accomplished, and the latter secured in less degree, plants would benefit immensely. Considering, as we do, this to be a most important subject for the interchange of facts and suggestions, we have made the foregoing remarks with the view of eliciting the views and experience of our readers and correspondents. Any society or individual that could afford thoroughly to test more minutely which plants are benefited and which are injured by our present system of shading, would deserve well of the horticultural world."

#### NOTES AND GLEANINGS.

We have great pleasure in announcing that the Council of the Royal Horticultural Society have concluded terms with HER MAJESTY'S COMMISSIONERS of the International Exhibition of 1881, and that the terms are alike fair and equitable to both parties, the Royal Horticultural Society being now placed in such a position as will enable it in the future to pursue its course untrammelled with conditions which formerly impeded its freedom of action.

— We learn from various sources that the continued RAINS have caused great injury to the small fruits. Straw-

berries and Raspberries have rotted, Cherries have cracked, Gooseberries are bursting on the trees, and Currants are levelled to the ground. The loss must be very great to growers in the districts where the wet and boisterous weather has been the most prevalent.

— THE medal which was awarded to Mr. Worthington G. Smith for his discovery of the Rusting-sporium of *Phenosporea infestans* in the tuber of the Potato was the Gold Knightian, a more valuable award than the Gold Banksian.

— We have received from Mr. R. Gilbert of the Gardens, Burghley, a box containing some of the finest-grown and best-ripened Figs we have ever eaten in this country.

#### THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 8.

Or the land which was at the disposal of ecclesiastics in the reign of the eighth Henry, there was the convent of the Black Friars near the Thames at Ludgate; the Grey Friars in Newgate Street, near the site of Christ's Hospital; the Augustine Friars close to Broad Street, now shortened to Austen Friars; the White Friars, in or near Salisbury Square; the Crouched, Crossed (or as it is now distorted "Crooked") Friars, in St. Olave's near Tower Hill; the Carthusian Friars at the Charterhouse; the Cistercian Friars, also called the New Abbey, in East Smithfield; and some friars who called themselves the "Brethren de Sacca," in Old Jewry. These latter wandered about at times, I suppose to obtain contributions, with bags or sacks, or perhaps the word applies to a particular kind of robe or dress somewhat sacklike. All these probably had plots of garden ground; and besides these friaries there were nunneries and priories, also monastic houses still more in number called hospitals, with resident brotherhoods; and then there were the private domains of ecclesiastics, called by the odd name of Inn in many instances, as in Chaucer's immortal "Tabard Inn," once the residence of the Abbot of Hyde.

Air, shelter, and water are indispensable requisites of the horticulturist, and the old gardens of London City were well favoured in these respects. They had plenty of air necessarily, from the scarcity of buildings at that time; and those then erected were clustered together, too, in an insalubrious way for their occupants, yet they less interfered with the successful culture of the gardens and orchards than if they had been dispersed over a larger space or carried up higher. But lofty houses were exceptional. The forests of Middlesex and Essex gave a capital screen from the north and east winds, and the moisture that must have been present in the air more or less at all times could not have been unfavourable. This arose from the fenny lands, such as are kept in remembrance by the names of Fenchurch, Finsbury, and Moorfields; while to the south much of Westminster and Lambeth was marsh, and the road that Royalty had to travel to Chelsea and Kensington was execrably bad, being both miry and stony.

Nor should it be forgotten, when we are considering the gardens of the London of our ancestors, that the land in the central districts has undergone a notable elevation. Five hundred years since, or four, three, or even two hundred years ago, would exhibit it to us more undulating than at present, but on the whole much lower, and therefore well sheltered. Beneath the clay and loam, which with an occasional dash of gravel constituted the subsoil, there was an abundance of water, as shown by the numerous City wells; so that it need not surprise us that the fruit trees bore well and ripened their fruit in most seasons, and that London was actually noted, not only for its Vines but for its vineyards. Holeburne, or the "Old Bourne," a rather famous streamlet in its day, which has disappeared, leaving its name as a heritage to the mighty Viaduct of Victoria's reign, had vineyards along its banks. Vine Street in Westminster was so called from a vineyard close by attached to the king's palace of Westminster. But one of the most curious changes of name is connected with Vinegar Yard in the unpromising vicinity of Drury Lane. This was formerly Vins-garden Yard, so it is stated, though the vineyard had vanished and houses sprung up on the ground as far back as 1621. Ely Place, the town abode of the Bishops of Ely, had its vineyard and large gardens—altogether a very agreeable spot, as one understands from the description of it; and no doubt Bishop Cox, who had to relinquish it to Sir C. Hatton, Queen Bess's dancing Chancellor, thought himself hardly done by. Sir C. Hatton took the property in 1576, at

the very moderate and peculiar rent of ten loads of hay and £10 per annum. However, the Bishop reserved to self and successors the right of walking there and of gathering yearly ten bushels of Roses, if they could find them. A memory of this worthy and his estate lingers in Hatton Garden, with hardly a solitary tree left of all those that shaded its walks. Hiss also were counted amongst London produce. They "grew well near the Bridewell," writes one: this name applied to a district between Blackfriars and the Temple, arising from an actual well that joined its waters to those of the Fleet. The fruit ripened well in the Rolls Garden, Chancery Lane, says the same authority; and Fig-Tree Court in the Temple tells us of a tree of this sort.

The fertility of the gardens in London City was enhanced by the numerous streams intersecting the land in various directions and running finally into the Thames. Some, like the Fleet, were of magnitude, allowing of the transit of vessels of size; others so despicable as to be worthy of no appellation save that of ditch, Houndsditch for example. Langbourne, yet a London ward, reminds us of the long bourn or brook that rose in Fenchurch Street and divided into small streams near St. Mary Woolnoth, and giving name to Sharborne Lane from these shares or little rills. Turnmill Brook, or the "River of the Wells," at Smithfield was another noted stream, and the Walbrook, thought to have been known to the Romans.—J. B. S. C.

## NOTES ON VILLA AND SUBURBAN GARDENING.

### KITCHEN GARDEN.

For forty-eight hours it has rained incessantly, and after about six hours tolerably fine weather it rained again for twelve hours more. This constant rain has done considerable harm to the soft kinds of fruit, such as late Strawberries, Raspberries, and Currants, especially the best of the Black. The Currants especially suffered, all the best being knocked off the trees by the rain and wind in such quantities as to considerably lessen the crops. Cherries, too, of the Bigarreau kinds on standard trees have been battered about so much, and have cracked so much through the wet, that most of them are not worth the trouble of gathering. Apples where they have set much too thick have been well thinned by the rough weather; even now in the most exposed orchards about here there is a good crop of all kinds left, and which will now swell very fast after the soaking rains.

On the other hand, the rain has made a most material difference in the appearance of all sorts of vegetables, which if fine weather now set in will be most beneficial in all respects. It just suits Scarlet Runners and Dwarf Beans, as well as Cauliflowers, and especially Turnips, which if sown at the time I advised will now be starting free and well. Celery, too, has received a most material assistance through the rains, and like most other crops in the kitchen garden will do without watering for some time. Attention must now be turned to keeping the ground clear of weeds among all crops. This work should commence immediately after the weather has become settled dry for a day or two, because then the small weeds will have less chance of recovering again.

Begin to earth-up the main crops of Celery, which will help to keep the moisture in the ground about their roots, and add more earth to the forward rows. Take care in applying it to separate each plant and keep them well pressed together, so as not to be interfered with by the earth in the hearts.

Spring-sown Onions are growing very fast, and will after the heavy rains be inclined to make a good deal of top or foliage, perhaps more than is needed for a good-sized bulb, therefore I usually lay them down. It is done with a short pole, and will be found to check their growth advantageously. When the bulbs have more increased in size the tops may be further flattened, for they are sure to rise up again. This will assist them both in size and ripening-off. Autumn-sown Onions will be ripening-off now, and should be laid down at once—that is, the Giant Rocca and Globe Tripoli, but the White Italian Tripoli has been ripe some time and ought to be taken out of the ground after this wet.

Plant-out both Endive of sorts and Lettuces in good quantities on early Potato ground, and there could not be a better chance to plant-out all kinds of Savoys and Greens, as well as Sprouts of sorts, such as the Brussels and Albert Sprouts. Jerusalem Artichokes are making too much growth, therefore if the tips of the shoots are not pinched off they will go up 10 feet high or more in rich soil, and that is not the way to obtain fine tubers.

Sow another crop of French Beans. This may be a large one so as to afford a few for pickling, and should be of some early sort, such as the Dwarf Negro or Early Six-weeks. This sowing is best made on a south border or some other equally early spot. There is likely to be some good late crops of Kidney Beans. Peas have not so far yielded well with me this season; but

the taller-growing sorts, such as the Emperor of the Marrows and Giant Emerald Marrow, promise more abundantly. Sow a crop of Spinach, say a few rows of the prickly kind. By sowing now there will be an excellent gathering through the autumn, and in about three weeks make another sowing to stand the winter, and if necessary the other may be left to do the same.

Cabbages must be thought about, and at the end of the month a crop may be sown, and again in another fortnight. The first may be Cattel's Reliance, and the other Early York and Wheeler's Imperial, or Cocoa Nut. The first sowing may be planted 2 feet apart when large enough, and then the next sowing may be planted between them. This will afford the chance of taking-out the first lot for use during winter, leaving the others till the spring, or if not wanted they may be cut early in the spring. This is a means of making the most of the ground in small gardens, which must be a plan worth studying at all times, and, moreover, it is worth carrying out in every crop where it can conveniently be done.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

THE weather has been so unfavourable for out-of-door operations that there is but little for us to chronicle. Fortunately nearly all the small fruits have been gathered for preserving purposes, and all the rain that has fallen as yet will do good in the garden. A wet season is always the best for us, as the greatest rainfall during the last twelve years was but little over 25 inches during the whole year. So far we have not had more than the average quantity, but it has come at a time when we have usually had to do much watering out of doors by hand. The weeds will now grow apace, but when the rains are over the walks will be hand-picked, and all the borders and quarters hoed. Potatoes are turning out well. The variety called Veitch's Prolific Ashleaf is an enormous cropper and a second early kidney of fine quality. For a first early kidney we grew Myatt's Ashleaf (the tubers were kindly sent by "D., Deal," but after growing on the same ground and under very similar conditions for three years they degenerated, and none were saved for planting last year. It has not been found so easy to replace them, as the trade seem to grow a different variety for Myatt's, and one very similar to the Prolific Ashleaf. Certainly this early variety sent by "D., Deal," was the best first early we ever grew.

Broad Beans are not grown extensively anywhere now, but most persons like to have one or two dishes every year, and it is just as well to grow the best sorts for cooking. We have a superior type of the Windsor, and it is certainly the best Bean for cooking, as the skin is not at all tough. The true type has seldom more than two Beans in a pod, and if a large proportion of pods produce three the stock is said to be "running away." For exhibition purposes the *Seville Longpod*—a new sort introduced last year—is the best. It may also be as good or better than the Windsor for cooking purposes; if so it will be a valuable acquisition. It is said to be a tender variety, which may not be in its favour in cold districts; it is also doubtful if it will ripen in this country so as to produce seeds without the plant degenerating. At all events the best seeds will be those that are grown in Spain or Portugal and imported into this country.

Peas are producing abundantly; we have had none of what is called "dry-weather" Peas this year. All salads and green crops generally have been of good quality and abundant. A plentiful season is not always the best for the market gardener; in a season like this the produce does not fetch enough in the market to pay the expenses of taking it there. Peas have been known to be sold at 1s. 6d. a sack, and the cost of picking is 6d. a bushel.

During this wet weather it would be well to throw some guano, salt, or other fertilisers over Asparagus, Artichokes, and Seakale beds. Avoid throwing it over the leaves as much as possible; if the manure is washed off immediately the leaves will not be injured, but if it should cease raining and the guano be left on the leaves they will be injured.

### PINKETTES.

Before we again write under this heading the suckers will be potted, and will remain in 7-inch pots all through the winter and be repotted into fruiting pots in spring. They will not bear fruit until the following season from the 1st of June onwards. If good suckers are potted early in June, or, better still, in May, they can be grown-on rapidly, shifted into 10 or 11-inch pots in July according to the strength of the plants, and under good management these will throw up good fruit the following season. It is not convenient for us to do them in that way, as the beds cannot be ready in time for the succession plants. We always use fresh tan for the young suckers, as the pit is required for other purposes, and has to be cleared out of all plunging material for the greater part of the year.

The suckers are potted in good clayey loam as soon as they are removed from the plants, but they are not watered for a week

after potting. The temperature of the body of the tan generally rises to 110° Fahr. This will not be injurious, as the pots are small, and the heat 6 inches below the surface will not rise over 100°. This high bottom temperature soon causes roots to form, when the plants may be watered more frequently. In the early stages of their growth Pines require to be kept moderately moist at the roots. In the fruiting house, some fruits are ripe, and others are in different stages; from the flowering period until the fruit changes colour it is not easy to determine which is the best course of treatment. It is, perhaps, best to cut all ripe fruit and place it in a cool room; it will keep in this way for a whole month sometimes, whereas if the fruit is not sound when cut it will decay in a week. An overmoist badly ventilated atmosphere is the frequent source of fruit spoiling shortly after it is ripe, and such atmospheric conditions are not adapted to the Pine at any time.

**Oranges.**—The fruit is now rapidly swelling on the pot trees. Those plants that have not been repotted require to be surface-dressed during the present month. We mix pounded charcoal, bones ground to powder, the best Peruvian guano, and loam in equal proportions. Two handfuls of this placed on the surface of a 12-inch pot three times during the growing season have a magical effect on the plants, causing the foliage to become of that dark green colour indicative of robust health. Mr. W. Paul's Rose manure has a similar effect upon plants when applied in the same way. Those trees that have no fruit upon them have been repotted and are placed out of doors. They will make nice specimens for fruiting next season. Two-thirds yellow loam and one-third turfy peat, with a sixth part of rotted manure, is the best compost for Orange trees in pots. The best sorts to grow are Tangerine, St. Michaels, and Maltese Blood.

**Figs.**—The fruit is ripening on the pot plants in the Cucumber house, and to prevent its cracking it is necessary to maintain a drier atmosphere, and not to apply too much water to the roots. Many of the fruits have cracked, or rather have split up the centre, exposing the internal part before the fruit is quite ripe. The Fig is a gross feeder, and is even more benefited by rich surface dressings than the Orange. Young plants struck from eyes or cuttings should be potted on before the small pots in which they were potted are too full of roots. By good management a tolerably-sized bush can be formed in two seasons, which will bear a good crop of fruit in a 12-inch pot the third year.

#### PLANT STOVE AND ORCHID HOUSES.

Considerable attention is now required in this department. Nearly all the different species of hardwooded plants have either completed their growth or are in a fair way of doing so, they consequently require more light and air. A large proportion of other stove plants are grown for their foliage. *Stephanotis floribunda*, *Ixoras*, &c., may stand in the full sun with advantage. If the wood is well ripened at this season abundant produce of well-developed flowers will be the result next season. If any require to be repotted this ought to be done at once. Sometimes it is necessary to reduce the ball of roots and repot in the same sized pot. This can easily be done by working round the sides of the ball with a pointed stick and loosening the mould which falls out from amongst the roots. There ought to be a space of from 1 to 2 inches all round the ball, between that and the sides of the pot the fresh mould should be carefully worked in amongst the roots.

All plants of a quick growth that are best propagated from cuttings annually should be potted on at once; if allowed to become rootbound all the foliage suffers, and some of it drops off. Of this class of plants may be named *Thyracanthus rutifolius*, *Eranthemum*, *Impatiens*, *Torenia asiatica*, &c. Old plants of the above will grow and flower well, but where the houses are small nice young specimens propagated from cuttings struck early are the most useful. The plants should be grown near the glass. *Centradenia floribunda* and *C. grandiflora* are also very useful winter-flowering plants that may be managed in the same way. They flower abundantly all through the winter and spring months. All of the above are of the easiest culture.

Wash Orchids with soapy water to destroy white scale and thrips. These two pests are very troublesome to Orchid growers. The white scale finds a home under the thin skin covering of the pseudobulbs of *Cattleyas*, *Lælias*, &c., and cannot be destroyed without removing this covering, which is injurious to the plant. Thrips get into the heart of the growing shoots of many Orchids, and they are not easily reached by any application. Tobacco smoke does more mischief than the thrips if not carefully applied, and it is not possible to reach them by washing. It is a good plan to lay the plants on their sides and syringe them with tepid water. All the Orchids have been surface-dressed or repotted.

#### FLOWER GARDEN.

Zonal *Pelargoniums* of the flowering type, *Calceolarias*, *Verbenas*, and, indeed, all flowering plants, have had the flowers very much damaged by the rains, while plants grown for the effect produced by the foliage are much improved thereby. Saturday afternoon was fine, and the mower was run over the lawn, the walks were also swept and the weeds picked out.

Placed sticks to plants which required support, and looked over *Phloxes*, *Gloves*, &c., and fastened them to the sticks. We have commenced to bud *Roses* on standard *Briars*, and also on the dwarf seedling. Sad accounts are given in the daily papers of the damage done by the heavy rains. It was stated at the meeting of the Metropolitan Board of Works last Friday that the rainfall on the two previous days was 2½ inches in London. At Loxford the measurement was on Wednesday, 1.81 inches; Thursday, 0.81; Friday, 0.81. Total 2.43 inches.—J. DOUGLAS.

#### TRADE CATALOGUES RECEIVED.

Mr. Wm. Bull, King's Road, Chelsea.—*Illustrated Catalogue of Plants.*

Mr. Cannell, Woolwich.—*Pamphlet on Heating.*

Mr. Ch. Vuylsteke, à Locochristy, near Ghent, Belgium.—*Priced List of Asaleas, Camellias, and Rhododendrons.*

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

BRECON.—July 22nd. Mr. W. J. Roberts, Sec.  
HELENBURGH, N.B. (Rose Show).—July 23rd and 24th. Mr. W. Ure Waddell, Sec.  
CLECKHATON.—July 24th. Mr. S. H. Williamson Hon.-Sec.  
BRIDGE.—July 27th. Mr. E. Hardeman, Hon.-Sec.  
PRESTON.—July 28th and 29th. Mr. W. Troughton, 4, Church Street, Hon.-Sec.  
SHEFFIELD.—July 29th and 30th. Mr. H. W. Adnitt, Hon.-Sec.  
SOUTHAMPTON.—July 31st and August 2nd. Mr. C. S. Fridge, 32, York Street, Lower Avenue, Sec.  
SEDGELY (Cottagers).—August 3rd. Mr. W. M. Hughes, Sec.  
WESTON-SUPER-MARE.—August 4th. Mr. W. B. Frampton, Sec.  
ILKESHTON AND SHIPLEY.—August 4th and 5th. Mr. E. Blount, Sec.  
NEWPORT (MONMOUTHSHIRE).—August 5th.  
OTLEY.—August 7th. Mr. Jno. Lee, Hon.-Sec.  
ROSSENDALE-NEWHURCH.—August 7th. Mr. M. J. Lonsdale, Newchurch, Sec.  
CANTERBURY.—August 12th.  
BURNOPFIELD.—August 14th. Mr. J. Hood, Sec.  
COVENTRY (at Ocombe Abbey).—August 17th. Mr. T. Wigston, 3, Portland Terrace, Sec.  
DOVER.—August 18th.  
NORTHLEACH.—August 18th. Mr. J. Walker, Hon.-Sec.  
EASTBOURNE—in the Devonshire Park.—August 19th. H. A. E. Ramble, Esq., 26, Hyde Gardens, Sec.  
GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.  
PONTIFPOOL.—August 19th. Mr. Ernest Deacon, Hon.-Sec.

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (X. Y. Z.).—The "Cottage Gardener's Dictionary" will suit you. It can be had from this office for 6s. 6d., or 7s. 2d. by post.

LILYUM BLOOMERIANUM (Wm. Hilloak).—This is synonymous with *L. Humboldtii* of Roel. It is a native of California, and is found on the lower hills of the Sierra Nevada at an elevation of 2500 to 3500 feet. It attains the height of 4 to 6 feet.

POTATOES (Rev. A. Blythman).—We would gladly assist you, but we could not undertake to name Potatoes.

COCOA-NUT FIBRE REFUSE (T. G. D.).—It is very useful as plunging material, and cuttings of most kinds of plants strike in it freely; but for making hotbeds it is not a fermenting material, leaves and tan, separate or in combination, being far preferable.

STRAWBERRY FORCING (T. White).—The plants may be forced in the frames as you propose, but the earthenware pipes of but 6-inch diameter would be liable to choke with soot, and be an inefficient mode of heating. A 2-inch hot-water pipe all around the frames, and if you have two 4-foot frames together there need be no partition, and one pipe where the division would otherwise be would be sufficient, or three rows for the part which is 8 feet in width. The frame along the greenhouse would hardly have sufficient heat to be considered as "forcing," but the Strawberries would come in several days before those in the open ground. The old plants in the bed are no good for forcing. You should at once layer in small pots runners from plants which are bearing or have borne fruit this season, and when these are well rooted detach them from the old plants and place in a rather shady position for a few days, and then transfer to 6-inch pots, potting very firmly, and using rather strong turfy loam, with a fourth part of old manure added. Stand the pots on a hard bottom in an open situation, and keep them well supplied with water, removing them to the frames early in November. As the season is far advanced we should fill the 6-inch pots and layer the runners into them, keeping them supplied with water, and not detaching them from the old plants until the young plants are strong and well rooted. In estimating the value of produce you will need to allow a large margin or contingencies. A dozen



pots may give you 1½ lb. of fruit, or it may be considerably less, and what is wanted is fine large fruit. Small, though there be as much weight for weight as of finer fruit, is always at a great discount; six or eight large fruit to a plant will be worth twice as much as four times that number of small fruit. The pots we should stand upon the soil, with no pecking of any kind between the pots, as the plants level in air playing about them. Three rows would be sufficient for a frame 4 feet wide. The kinds most likely to answer your purpose are Sir Joseph Paxton and President. The runner next the old plant is, of course, the first runner, and any beyond it should be cut off directly beyond the runner layered, and all runners from the young plants should be removed as they appear.

**BRITISH QUEEN STRAWBERRY ON LIGHT SOIL (C. Y.).**—It would be necessary to trench your soil as deep as you can without bringing up more than a few inches of the poor subsoil, and at the bottom of the trench apply the manure rather fresh—i.e., about half rotten, and fork it in before applying the soil of the next spit, which should be mixed with an equal proportion of marly clay, and upon this again manure, mixing it by a good forking-in with the soil below; and you may finish the bottom spit, which will be the top soil of the first trenched part, in the same manner as the first, applying to the surface a dressing of old manure and forking it well in. Allow a few days, or better until after a good rain, and the ground being in good working order tread it the same as if you were going to grow Onions, the harder the better. The surface after planting to be only lightly stirred in the spring, and well manured in the autumn. There is reason to conclude that with liberal supplies of water in dry weather after flowering you will have good crops of fruit.

**RASPBERRY (Idem).**—Prince of Wales (Outbush's), is a most excellent Raspberry; Carter's Prolific and Fastolfe are both good. "With light soil, deeply dug, well manured, and mulched during hot weather," you ought to obtain exhibition fruit, but you omit one essential—viz., watering before applying the mulch, and afterwards if dry weather ensue to continue the watering and insure fine fruit.

**GRAPES MILDEWED (B. H. Merrett).**—If the mildew is killed wash off the sulphur at once. Do not diminish atmospheric moisture until the Grapes commence to colour, but be careful to admit a constant current of air night and day. Do not damp the house late in the afternoon, and do not close entirely at night. Early and sufficient air is the best preventive of mildew. In dull weather you will not need to use much moisture in the house; it is only on sunny days that frequent damping will be necessary.

**VINES UNFRUITFUL (Old Subscriber).**—We are inclined to think that you have kept your house too close, as the leaf sent us is scalded. We further think the wood of your Vines was not sufficiently ripened. The side shoots which spring from the main stem of the Vine should not be closer than 15 inches apart on either side of the rod. Every leaf is then accessible to the light, and if sufficient air is admitted the texture of the foliage will be stout instead of flimsy, which is the case with the leaf you have enclosed. Thin out the shoots to that distance apart, stop the shoots so that one leaf does not overlap another, pinch out all laterals as they appear, admit plenty of air, and if the weather is dull after the Grapes are out apply fire heat; the wood will then be perfectly hard and ripe by the autumn, and Grapes will follow. The roots may also have penetrated too deeply. On this point see our reply to "East Yorkshire."

**SHRIVELLED GRAPES (A. B.).**—Your Vines are in a deplorable state. The cause of the shrivelling may be traced to the "cutting away of the young growth by armfuls after the berries were thinned." It is a barbarous practice, and frequently causes a corresponding decay of the roots by the check they received reciprocally with the mutilation of the branches. If your Vines are bearing a heavy crop relieve the pressure by cutting out entirely all the worst bunches. Allow the laterals to grow to restore the sluggish root action, yet not to grow to a thicket, but stop them soon enough to prevent overcropping. Undue crowding of the foliage should be prevented by timely pinching, and not be encouraged by a let-alone policy of several weeks' duration to culminate in a grand slaughtering day. Admit air, and use atmospheric moisture judiciously; leave the top ventilators slightly open all night, and especially increase the air as soon as needed each morning. By this treatment the injury to your Vines may not be permanent. You may report their condition in a month, when possibly we may be able to give you further advice founded on their condition at that time.

**GRAPES MILDEWED (D. G.).**—The cause of mildew is mainly ascribed to a wet border, a low wet site, and a too close and moist atmosphere; but we have known it prevail under opposite circumstances. Dust the infested parts, both leaves and fruit, with flowers of sulphur, and admit air more freely, especially at night.

**VINES UNHEALTHY (East Yorkshire).**—If the roots of your Tokays had descended into the subsoil, and so caused the injury of which you complain, we think the Black Hamburgs would at least have been similarly injured. We think the mischief is caused by the red spider. We hope you sent us the worst leaf you could find, for it is literally devoured with the pest. Drench the foliage thoroughly with pure water, applying it forcibly to every leaf, evading as much as possible the bunches. By three thorough washings on alternate days and the treatment you are otherwise adopting you will eradicate the pest. At the same time it would be well to remove the surface of your border, laying bare the principal roots, and replace with charred refuse and lighter soil, covering them about 4 inches, and over this place 5 or 6 inches of good manure. This will enrich the surface and tend to promote an emission of fresh roots. Rich surface soil is the best means of preventing the descent of the roots into the subsoil. You may do this at once, taking care that the roots do not become dry by exposure. But with the best care of the roots you cannot hope to obtain Grapes unless you wage a successful war against the red spider. This year the nutriment of the border has been appropriated by the insects instead of by the Vines. We shall be glad to give you the best aid we can at any future time when you feel we can be of assistance.

**PLANT AFFECTIONS (S. E.).**—The Hollyhocks are severely affected by the new disease, *Puccinia malvacearum*, which reached this country from France two years ago. In the number for May 28th, 1874, may be found a full illustrated account of this disease. Washing every individual leaf with a strong solution of soft soap might check the growth of the fungus, but we fear the only way of eradicating it is to burn the plants. The Rose leaves are affected with the orange fungus, *Uredo rosea*. Syringe the shoots with a solution of soft soap of a strength of 8 ozs. per gallon at a temperature of 100° to 120°, then dust with sulphur. The diseased shoots from your Pear tree suggest that the soil is insufficiently drained. Draining the soil and the encouragement of surface roots by rich top-dressings is the treatment we recommend.

**FIG TREE FOR SOUTH-WEST ASPROT (A Cottage Gardener).**—It is as you are informed a good covering for a wall during the summer, having large handsome foliage; but, losing its leaves in winter, is not so desirable as even Ivy, unless account be taken of its fruit, which it is likely you may in your mild climate secure upon a south-west wall. The kind most likely to succeed is the Brunswick, a plant of which you may obtain of most nurserymen at a moderate price. The best mode of training is the fan, training so as to cover the wall with branches and shoots, having the latter about 9 inches distance apart; and the only pruning required is to cut-out the long, bare, old branches in spring, after the trees become crowded, and replace them with young bearing wood. A rather light and open soil is best and only moderately rich, for in rich soil the tree goes too much to wood, affording little fruit.

**HOUSE FOR CUCUMBERS (Amateur).**—If you sink the house 2 feet the necessity for so much brickwork above ground will be avoided, and for affording bottom heat and for the bed you will require a depth of about 4 feet. We should have about 2 feet of side lights, and to open all the length on one side, or every other light on both sides. The width being 12 feet with borders along each side with two rows of 4-inch pipes to each border and on a level, and 18 inches below the level of the surface of the beds, which we should have on a level with the brickwork, forming the sides of the bed inside or 8 feet from the floor, the external walls being 9 inches thick, and a foot higher as before stated. Leave 3 feet in the centre for the path, and the beds of equal width on both sides. Allow a fall for the roof of 4 feet 6 inches calculating from the eaves. Hot-water pipes as a mode of heating are vastly superior to fires, and cheaper in the long run, though more expensive at first. You may calculate on having fruit ten months out of the twelve, and this allows a month for each renewal of plants, the plants being raised in pots and planted out when strong. As to produce, that depends upon management and kinds. Under good management you should out a thousand, and that is allowing a large margin for mishaps. Cucumbers are easily managed, nothing but what an amateur may soon learn.

**CUCUMBER FAILURE (D.).**—We think you have a mild form of the disease, and should at once clear out the plants and soil, giving the house a thorough cleaning. The description you give of your plants accords well with the disease for which there is no remedy, and the plants from the gangrene you name will not give you fruit of good quality should they recover, hence we advise their removal. Plant in turfy loam taken where the soil is light rather than heavy, and use this broken up fine without admixture of any kind, applying what manure may be required to the surface after the plants are in a bearing state. The soil you have been using appears worn-out garden soil.

**SEEDLING ASPARAGUS IN OLD BED (M. P. A.).**—The young plants will do no harm in the old bed, but will be good for filling up vacant space; but they should be thinned to at least 9 inches apart, and kept that distance from the old plants, removing all the others. By removing the old "grass"-bearing berries in autumn so soon as the leaves are cast or it becomes yellow you will remove the danger of a further increase of seedlings, as the seeds will adhere to the haulm producing them.

**ROSES BUDDED ON MANETTI SUCKERS (Idem).**—Your only plan will be to wait until November or early in December, and then take up the suckers with the Roses upon them, preserving to the suckers about 4 to 6 inches of root-stem, and then plant so that the junction of the Roses with the stocks will be about 8 inches, not more, below the surface. They should be pruned-in to 4 to 6 eyes from the soil, according to their strength, in February.

**STANDARD ROSES (M. O.).**—John Hopper, Charles Lefebvre, Alfred Colomb, La France, Mme. La Baronne de Rothschild, Dupuy Jamin, Boule de Neige, and Mme. C. Joigneux. If you can do with these as pillar Roses or strong dwarfs we can recommend them in preference to standards. We have named eight distinct in colour, and good in habit and growth.

**AZALEAS AND RHODODENDRONS FROM CUTTINGS (H.).**—Our reply refers to hardy kinds. Take the cuttings of the current year's growth when the wood next the old wood is nearly ripe, and insert them in sandy peat covered with an inch layer of silver sand in a shady or north border, and cover with a hand-light, or they may be inserted in cold frames. They require to be kept close until rooted, which is facilitated by, after the cuttings have formed a callus, placing them in a gentle bottom heat. After they are rooted admit air freely.

**HARDY PERENNIALS (Mas).**—*Aquilegia vulgaris* (seed), *Campanula rapunculoides* (division), *Convallaria majalis*, *Lily of the Valley* (division), *Daphnium Belladonna* (seed and division), *Pink* (seed), *Carnation* (seed), *Helleborus niger* (division), *Hemerocallis flava* (division), *Iberis Garziana* (cuttings), *Iris germanica* (division), *Dialytra spectabilis* (cuttings and division), *Lilium auratum*, *Lychnis diurna flore-plena*, *Myosotis dissitiflora* (seed and cuttings), *Narcissus Ajax maximus*, *N. poeticus plenus*, *Paeonia officinalis rubra plena* (division), *P. albiflora fragrans* (division), *Phlox decussata* var. (seed, division, or cuttings), *double Primrose* (division), *Pyrethrum*, *double* (seed and division), *Saxifraga longifolia vera* (division), *Schizostylis coodinea* (division), *Sedilla alba*, *Sisyrinchium grandiflorum* (division), *Spiraea alipendula plena*, *S. japonica* (division), *Trollius europaeus* (division), and *Violeta Victoria Regina*, *Queen of Violets*, and *Neapolitan* (suckers and runners).

**FRUIT TREES NOT BEARING—KINDS FOR NORTH-MIDLAND COUNTIES (B. S.).**—The unfruitfulness of the trees is probably attributable to too free growth, for which the most likely course to pursue to secure fruit would be to lift them in the autumn after the leaves have fallen. *Apples* that would suit your locality are, *Dessert*: *Devonshire Quarrenden*, *Irish Peach*, *Kerry Pippin*, *Margaret*, *Downton Pippin*, *Franklin's Golden Pippin*, *Ribston Pippin*, *Adam's Pearmain*, *Bess Pool*, *Cockle Pippin*, *Sturmer Pippin*, *Scarlet Nonpareil*. *Kitchen*: *Kewick Codlin*, *Lord Suffield*, *Nonpareil*, *Manx Codlin*, *Emperor Alexander*, *Hawthornden*, *Tower of Giammis*, *Aldrich*, *Bedfordshire Foundling*, *Blenheim Pippin*, *Dumelow's Seedling*, *Mère de Ménage*, and *Northern Greening*. *Pears*: *Doyenne d'Été*, *Citron des Carmes*, *Jargonelle*, *Williams's Bon Chrétien*, *Bourré d'Amante*, *Louise Bonne of Jersey*, *Comte de Lamy*, *Jersey Gratioli*, *Red Doyenné*, *Thompson's*, *Marie Louise*, *Bourré Dial*, *Knight's Monarch*, *Dr. Trouessart*, and *Bergamotte Espere*. *Plums*: *July Green Gage*, *De Montfort*, *Green Gage*, *Gullin's Golden*, *Transparent Gage*, *Hulling's Superb*, *Kike's*, *Coe's Golden Drop*. *Culinary Plums*: *Early Rivers*, *Gisborne's*, *Orleans*, *Victoria*, *Prince Englebert*, and *Damon*. *Cherries*: *Early Jaboulay*, *Warder's Early Black*, *Black Tartarian*, *May Duke*, *Cleveland Bigarreau*, *Elton*, *Mary*, *Late Duke*, and *Coe's Late Carnation*. *Custinary*: *Kentish*, *Belle de Magnifique*, and *Morello*.

**POTATOES (Subscriber).**—Your Potatoes will probably be none the worse for the soaking they have received. Allow them to remain in the ground to mature.

**WINTER LETTUCE (St. Edmund).**—The Lettuce you mean is the Bath Cos.

**TANK FOR BOTTOM HEAT (E. K.).**—Our "Heating Manual" gives full instructions for the formation of tanks for affording bottom heat. We could not give you any definite information, as you do not enlighten us as to what you wish, and yet we may hint that without a house or pit in which to place the tank for bottom heat you can do nothing, nor can we in ignorance thereof advise. Glad, indeed, shall we be to criticise any plan you may propose. A good book for an amateur upon outdoor gardening is the "Garden Manual," published at our office, and it may be had if you send 1s. 8d. with your address, and Keane's "Indoor Gardening" for 1s. 7½d. The "Heating Manual" may be had free by post for 5½d.

**NAME OF FRUIT (Rev. C. Madden).**—We believe your Cherry to be Early Purple Gage.

**NAMES OF PLANTS (Jeanie).**—1, *Cynodorus cristatus*; 2, *Agrostis vulgaris*; 3, *Holcus mollis*; 4, *Alopecurus aegrotus*; 5, *Holcus lanatus*; 6, *Alopecurus pratensis*. (Suberthor).—1, *Pennisetum longistylum*; 2, *Stipa pennata*; 3, *Spiraea Rosmarinifolia*; 4, *Spiraea filipendula* f. *plena*. (H. E.).—*Briar maxima*. (S. E. T.).—We have examined the plant, and it is really *Saxifraga aizoides*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### PREVENTING HENS SITTING.

As everyone who keeps poultry has not several runs, I write for the benefit of those who like myself keep a few hens in their yard. The quickest way to make them give up sitting is to put them in some place done round with wire netting with no dark corners anywhere, and far enough from their usual haunts to be strange to them. You may keep a hen for weeks shut up if it is where it is in the habit of being, but in a fresh scene I usually find three or four days quite long enough, and my hens are Dorkings. In short, anything that "changes the current of the hen's ideas," is the greatest point to aim at; therefore the more public the place the hen is put in the better.

### DARI OR INDIAN MILLET.

In answer to the query of "H. G. W." contained in the *Journal of Horticulture* as to where dari can be procured, I can inform him that a quantity has arrived at the port of Gloucester, and can easily be obtained about this neighbourhood. Mr. Phelps, corn merchant, Rose, Herefordshire, can supply it. I believe it is largely grown in the West Indies and Egypt.—H. W.

Ms. E. BIRCH says, "I have had dari from Mr. T. Day, 186, High Holborn, at 21s. the sack of 240 lbs."

### DRIFHLINGTON AND ADWALTON POULTRY SHOW.

THE twenty-first annual Show of the above-named Society was held at Drighlington on the 10th inst. The pens are about the worst used by any society, being of wood with wire fronts, and entirely worn out, and so bad, in fact, that unless the exhibitor attends the Show it is not wise to send the birds; we would advise them to be discarded for those of Turner's or some others of more modern kind, and this we put so pointedly on account of hearing complaints on this head so loud and frequent, and in the interest of the Society itself.

In poultry Mr. Beldon won most of the prizes—and had that gentleman's exhibits not been there the Show would not have been worth a visit in this section—the quality of the winners throughout being good. In *Games* were some very good birds, Messrs. Mason's Duckwing cock was superb in colour, the Piles also being good. In cock and hen of any breed a capital Silver Poland was first, and Gold second; and in cocks first was a Gold Poland, and second Black Red Game. In *Game Bantams* Black Reds won, and Black Rose-comb in the Variety class. *Geese* were a poor lot, while *Rouen Ducks* were very good. In the Variety class for Ducks first were White Call and second Black East Indian. In *Pigeons*, both Carriers and Pouters were pretty good. In Tumblers, any other variety, first were Black Mottles and second Wholesome, red. *Barbs* were good, Blacks winning; and Antwerps a fair lot, the first Blue and second Red-chequers. In Turbits, first were about the best pair of birds in the Show, Reds of the peak-headed variety, the second Silvers. Fantails good, but Jacobins poor, and Owls neat; White Africans were first, and a capital pair of Blue English second. In the Variety class first were a nice pair of Spangled Ives, and second White Dragons, Blue Dragons being highly commended. Of *Rabbits* there were nine entries, three of Himalayan only poor, and in the Variety class first was a Silver-Gray buck, and second also young Silver-Grays.

**SPANISH.**—1 and 2, H. Beldon, Bingley.  
**DORKINGS.**—1, H. Beldon.  
**COCHIN-CHINA.**—1, H. Beldon. 2, W. Mitchell, Birkenhead.  
**BRAMA POUTER.**—1 and 2, W. Schofield, Birkenhead. 3, H. Beldon.  
**GAME.**—Black-breasted or other Red.—1, J. R. Thornton, Bradford. 2, H. Walker, Gomersal. Duckwinged.—1, H. C. Mason, Birstal. 2, H. W. Mason, Drighlington. 3, L. Fell, Adwalton. Any other variety.—1, R. Walker, Gomersal. 2, H. C. Mason. 3, G. S. Mason.

**HAMBURGERS.**—Golden-spangled or Silver-pencilled.—1 and 2, H. Beldon. Silver-spangled or Silver-pencilled.—1 and 2, H. Beldon. Black.—1 and 2, H. Beldon.

**ANY OTHER VARIETY.**—1 and 2, H. Beldon.

**ANT BREED.**—Cock.—1, H. Beldon. 2, E. Hemmingsway, Halifax.

**BANTAMS.**—Game.—1, E. Hemmingsway, Shelf. 2, J. Simpson, Gildersome.

Any other variety.—1 and 2, H. Beldon. 3, C. & F. Illingworth, Highdown.

**GESE.**—Medal, 1, and 2, J. Ward, Adwalton Moor. 3, J. France, Bradford.

**DUCKS.**—Aylesbury.—1, J. R. Pollard, Wibsey, Bradford. Rouen.—1, J. R. Pollard. 2, H. Beldon. 3, W. Mitchell, Bradford; W. Mitchell, Birkenhead; J. Fell, Adwalton; D. Denby, Drighlington. Any other variety.—1, H. Beldon. 2, N. Moore, Drighlington.

**PIGEONS.**

**CARRIERS.**—1 and 2, J. H. Sykes, Huddersfield. 3, H. Beldon.

**POUTERS.**—1, A. Hawley, Giffington. 2, J. H. Sykes.

**TUMBLERS.**—Almond.—1, H. Beldon. Any other variety.—1, Bont & Stairmand, Great Horton. 2, A. Hawley.

**BARBS.**—1, J. Thresh, Bradford. 2 and 3, J. H. Sykes.

**ANTWERPS.**—1, T. Shuckleton, Bradford. 2, T. Scott, Bramcliffe. 3, A. Kempall, Gomersal; H. Beldon. W. Hardcastle, Bingley.

**TURBITS.**—1, H. Beldon. 2, J. F. Crowther, Mirfield.

**FANTAILS.**—1, H. Beldon. 2, J. H. Sykes.

**JACOBINS.**—1 and 2, Mrs. H. Dwyer, Westgate Hill.

**TRUMPETERS.**—1, J. H. Sykes.

**MASONS OR SWALLOW.**—1, H. Beldon.

**WILDS.**—1, W. Hardcastle, Bingley. 2, H. Beldon.

**OWLS.**—1, H. Beldon. 2, T. E. Hainesworth, Greenside, Pudsey. 3, J. Thresh, Bradford.

**ANY OTHER VARIETY.**—1, H. Beldon. 2, Bont & Stairmand. 3, W. Hardcastle; J. Hardesty, Bramcliffe; G. S. Burton, Leeds.

**RABBITS.**—Himalayan.—1, G. S. Burton. 2, J. J. Mason, Drighlington. Any other variety.—1, Found & Chappell. 2, G. S. Burton.

**JUDGES.**—Mr. James Dixon.

### EARLSEATON AND CHICKERLEY SHOW.

THE annual Show of this Society was held on the 10th inst. in the cricket field at Chickerley, Turner's pens being used and well arranged for the inspection of the specimens. From some irregularities which were not fully explained the Society seems to have suffered in a financial point, but the weather proved such that we think the Treasurer will feel less anxious as to the position of the Society; and with a real hardworking Committee we think it has a good prospect before it.

Poultry were not numerous, but as a rule the winners were good. In the two classes of *Games* we noticed one capital pen of Piles and one of Duckwings, but in *Brahmas* only the first-prize Dark deserves mention. *Cochins* were good as a class, the first-prize pen winning the cup for the best pen in the Show. All were Bufts. *Spanish*, only one pen was good; and *Polish*, three pens, all Golden, were a grand lot. *Hamburgers* were good; the first-prize Silver-spangle and Gold-pencil cocks were very good, the second in Pencils being a good pen of chickens (Silvers). *Game Bantams* were two good classes, and in Reds the first took the extra prize also. The following class were all Piles, chickens taking the prizes. Any other Bantams were Silver Sebrights. In single cocks first was a Buff Cochin, and second a Brown Red Game. In Any other variety first were a fair pen of Black Hamburgs, and second Dark Grey Dorkings. *Ducks* were a very good class; and the prizes having been withheld in one class an extra was awarded, the first being *Kasarkas*, and the others *Rouen*.

*Pigeons* were more numerous than poultry. Carriers, Duns were first and Blacks second; and in Pouters Blues and Whites won respectively. *Barbs*, only one pen of Duns, the hen being first-rate. Tumblers good, a pair of Yellow Agates winning first and also the cup for best pen in the Show, second being Almonds. Owls were poor, and in Fantails the prizes were withheld. Antwerps were a grand class, the first short-headed Silver Duns; second also and an extra third awarded to a handsome pair of young medium-faced not half through the moult, and one to a third pair of Short-faced Silvers. Any other variety was a good class, the first Trumpeters, second Pigmy Pouters; while Dragons, Starlings, and Jacobins were highly commended.

*Rabbits* were the best section in the Show. In Lops the first was a very pretty young Fawn doe, 21 by 44; this Rabbit also securing the cup. Second, also a doe of that colour, was 21½ by 44, but not equal in other points; a third going to a Tortoiseshell 22 by 4, not a nice Rabbit, however. Very highly commended, a young Tortoiseshell 21 by 44, but not in good bloom. Silver-Grays were an almost uniform class, every Rabbit being good, a slight difference in the silvery only making the difference. In the Variety class the first was a real good Himalayan doe, second a large Angora of fair average coat; an extra second going to a very small Angora with a coat of very fine texture, many others being noticed.

**GAME.**—Black or Brown Red.—1, A. Sugden. Any other variety.—1, W. G. and W. J. Mason. 2, E. Holland.

**BRAMA.**—1, W. Harvey. 2, H. Digby. 3, W. Schofield.

**COCHINS.**—1 and 2, W. Harvey. 3, W. Mitchell. Extra 2, J. North. 3, J. Mann.

**SPANISH.**—1, J. Thresh.

**POLANDS.**—1 and 2, — Silver. 3, J. Mann.

**HAMBURGERS.**—Gold or Silver-spangled.—1, S. Arnold. 2, W. Kellott. Gold or Silver-pencilled.—1 and 2, H. Digby.

**GAME BANTAMS.**—Black or Brown Red.—1, 2, 3, W. F. Entwistle. 4, A. Sugden. Any other colour.—1 and 2, W. F. Entwistle. 3, G. E. Kellott. 4, G. Noble.

**BANTAMS.**—Any other variety.—1, W. H. Entwistle.

**ANY VARIETY.**—Cock.—1, J. S. Wilson. 2, G. Fearney. 3, J. Mann.

**ANY VARIETY.**—1, D. Miles. 2, W. Harvey.





For years we and many other extensive bee-keepers have bought in September the bees of condemned hives at about 1s. per lb., or say 8s. or 4s. per swarm. Mr. Thomas Addey of Epworth told me that he had sold and sent off three hundred swarms of condemned bees one autumn. These were bought with a view to strengthen with numbers existing stocks. Swarms of bees even under the sentence of condemnation in the month of September are marketable and of greater value than most apiarists imagine.



The state of the weather on the eve of the dog days, as well as the present conditions of hives, indicate that "attention to feeding" should be the watchword of apirians during the next six weeks. If the weather do not soon improve much feeding will be necessary to fill hives with combs and brood and furnish them with sufficient food.—A. PATTENAW.

### HOW TO DEAL WITH SUPERS.

At this time of the year there are ever recurring questions as to what is to be done with supers. "How are we to get rid of the bees?" "What shall we do with the brood?" And so on. Let me state my own practice under such varying circumstances as occur to me.

First of all, there need be no difficulty where the super is well filled and there is no brood in it. I have never yet found Aston's bee trap fail. The only care requisite in the use of it is to see that the little talc valves set properly, dropping down easily in their separate chambers, so as to close the aperture at once upon the exit of each bee. An ill-constructed trap would be worse than useless. Mine is affixed to a shallow box, which is absolutely closed up save where a long narrow aperture conducts the bees into it from the super, and there is an oblong opening in the side of the box just under the aperture alluded to which corresponds to the trap that is affixed to it outside. When once I have put my super over this box I trouble no more about it, sure that in the course of an hour (more or less) I shall find it empty—that is to say, provided the queen be not there and the super is empty of brood. I prefer to put it as near to the parent hive as I can, in order that the younger bees in it may be attracted home by the joyful hum of their returning companions. I may add that it is better to remove supers late in the day when there is less chance of annoyance by stray foragers from other hives.

A friend of mine who dispenses with bee traps simply removes his supers towards sunset, turns them up under a bush, and says he never experiences trouble from robber or returning bees. He gives the super a knock or shake or two before he deposits it on the ground to give the bees notice of the change in their circumstances. This excites them to inquire for their queen-mother, and hastens their departure if she is not to be found.

Where the super is large and very full of bees, also whenever it has been ascertained that the queen is among them, or brood in any quantity, it is good policy to drive out the mass of inmates before placing the super over the trap. As soon as driven they should be put back over the parent hive. By this treatment you will have far less trouble in the end, and a multitude of young bees will be saved which otherwise would perish from their ignorance of the locality, not to speak of their inability to fly. This done, we would treat the super as before till the rest of the bees had flown home. Should any remain a little fumigation may be had recourse to with benzinone or chloroform to get rid of them.

The last difficulty concerns the treatment of the brood. If in any quantity this is always worth preserving. It should be put out as soon as possible and be carefully adjusted in some super reversed, care being taken that a hole in the super shall correspond with the hole at the top of the hive to which it is to be given. When put over the hive the bees will quickly come up and take care of it. A loose board must be put over it for the time—that is to say, until the super is to be removed in the autumn after the young bees have been duly hatched-out.—B. & W.

### TWO QUEENS IN ONE HIVE.

In the autumn of last year I forwarded to you an account of a hive of Ligurian bees belonging to Mr. John Boulton, a tradesman of Ulverston, North Lancashire, in which two young fertile queens were found working together. Eventually, when the hive had seemingly attained its original strength, one of the queens was either killed or left the hive; at all events she disappeared, and nothing more was seen of her. It may interest your readers to know that the hive has been since doing as well as could be expected in a bad season, and that on Sunday, July 5th, it threw a fine swarm.—BETA.

### OUR LETTER BOX.

**OTATHEAL (F.).**—Yes, it should be as you state, "nearly as fine as flour." **BEES NOT SWARMING (Rev. J. Brown).**—As it is too late for swarming this year we advise you to take off the large super, which you may seem nearly full, and to cut out of it any homecomb that is fully sealed, and then to replace it; or you may substitute another smaller super as the honey season is drawing to its close. If you are near heather of course you have still a possible harvest additional, which we of the low country know nothing of. The dead bees were probably drones.

**LIQUIRIAN BEES (Rev. F. E. Hutchinson).**—Send us a specimen of the bee and we will let you know if it is true.

**CANARIES AND POULTRY (E. Siddell).**—Reply to question 1. We would not recommend you to breed in-and-in as a rule, but to introduce fresh blood

each time you match your birds for breeding. For male-breeding purposes in-and-in breeding is sometimes practised. Although birds of very close relationship are sometimes paired and bred together without any perceptible detriment to the offspring, still it is natural to suppose that blood, form, and size must eventually become degenerated in each successive generation. 2. The various breeds of Canaries, with their characteristic points, may be found in a work partly re-written by Mr. Barnard—viz., "Bechstein's Chamber and Song Birds," published by Hardwicke, Piccadilly, London, price 6s. 6d., which work would "enable a beginner to identify" the respective breeds. We believe the book is the first published wherein the points by which Canaries and Males are judged are set forth. 3. We should advise you to dispose of the "forty head of poultry of mixed breeds" in the nearest market, or strike a bargain with some respectable poultryer, through each of which sources you may obtain a marketable value for the same. With the bare knowledge that "there is Game and Houdan blood among them," and that "about two dozen head are chickens of this year," it is impossible without seeing them to name the value of the lot. Chickens are chickens it is true, but some chickens differ much from others. Had the fowls been of pure and distinct breeds you would have had an opportunity of realising a better price for them than you may otherwise do. Through the medium of an advertisement, describing the fowls and giving your address, in all probability you may obtain an offer for the same.

### METEOROLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 8" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.				Winds.	
1875.	Barometer at Sea Level.	Hygrometer.		Direction of Wind.	Therm. at Sea Surface.	Shade Temperature.		Radiation Temperature.		
July.		Dry.	Wet.			Max.	Min.	In sun.		On grass.
We. 14	29.995	66.7	64.6	S.	67.5	66.7	80.4	66.5	1.154	
Th. 15	29.611	57.5	56.9	N.E.	54.5	53.2	65.1	56.1	0.255	
Fri. 16	29.794	56.8	57.7	N.	57.7	56.5	77.5	56.7	0.255	
Sat. 17	29.830	57.5	57.6	N.	57.6	56.1	85.3	52.1	0.255	
Sun. 18	29.734	64.5	61.8	E.	66.3	77.9	84.5	115.1	0.270	
Mo. 19	29.828	60.7	60.4	N.W.	60.0	57.5	75.5	54.0	0.255	
Tu. 20	29.923	56.5	56.7	S.W.	56.7	55.5	75.4	55.0	0.255	
Means	29.834	59.5	58.5		60.0	61.5	76.1	53.5	0.270	

### REMARKS.

14th.—Rain all day, very heavy after 9 P.M.; the heaviest fall since July 20th, 1867.

15th.—Another wet day and night, but not such heavy rain as on the previous night.

16th.—Raining at times nearly all day, sometimes heavily, but faster towards night.

17th.—Wet morning, and till about 4 P.M., then fine till 10 P.M.

18th.—Fair, but rather cloudy in morning, but soon clearing off and becoming a very pleasant day, though rather close.

19th.—Morning wet; day showery, but fine at intervals; fine evening, but thick haze from 9 P.M. to 8 A.M. on the following morning.

20th.—Slight rain when the haze cleared off, but the after part of the day fine and pleasant.

Owing to the rain falling on every day, and its unusually large amount, the air was extremely damp. The maximum in sun fell from an average of 165° to 95°, but owing to the same cause nocturnal radiation was diminished, and the night minima were 5° higher than in the previous week.—G. J. SMOOK.

### COVENT GARDEN MARKET.—JULY 21.

THE last week's incessant rain has had a most ruinous effect upon the fruit, which at this time of year form our staple article of trade. Good samples of Currants, Cherries, Strawberries, and Gooseberries, having become quite scarce. It has also affected the produce from under glass, which is all suffering from want of sunshine. Potatoes are beginning to show blight. The last cargo of West India Plantains are very good, price ranging from 1s. to 2s. each.

### FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	1	0 to 2	0	Mulberries.....	lb. 0 6 to 0 8
Apricots.....	box 1 6	4 0	0	Nectarines.....	dozen 0 10 12
Cherries.....	lb. 0 6	1 0	0	Oranges.....	per 100 8 0 10 0
Chestnuts.....	bushel 0 0	0 0	0	Peaches.....	dozen 0 10 12
Currants.....	1 sieve 2 0	3 0	0	Pears, kitchen.....	dozen 0 0 0
Black.....	do. 2 6	3 0	0	Pears, dessert.....	dozen 2 0 4 0
Figs.....	dozen 0 0	12 0	0	Pine Apples.....	lb. 3 0 5 0
Floribunda.....	lb. 0 0	0 0	0	Plums.....	1 sieve 0 0 0
Gobs.....	lb. 0 0	0 0	0	Quinces.....	dozen 0 0 0
Gooseberries.....	quart 4 0	6 0	0	Raspberries.....	lb. 0 4 0 6
Grapes, hothouse.....	lb. 2 0	6 0	0	Strawberries.....	lb. 0 2 1 6
Lemons.....	per 100 8 0	12 0	0	Walnuts.....	bushel 8 0 12 0
Melons.....	each 2 0	5 0	0	ditto.....	per 100 1 0 1 6

### VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	dozen 3 0	6 0	0	Leeks.....	bunch 0 4 to 0 6
Asparagus.....	per 100 4 0	8 0	0	Lettuce.....	dozen 0 6 1 0
French.....	bundle 0 0	0 0	0	Mushrooms.....	potato 0 2 0 0
Beans, Kidney.....	1 sieve 2 0	3 0	0	Mustard & Cress.....	per bushel 0 2 0 0
Broad.....	1 sieve 2 0	3 0	0	Onions.....	bushel 0 0 0 0
Beet, Red.....	dozen 2 0	3 0	0	Pickling.....	quart 0 0 0 0
Broccoli.....	dozen 0 1	6 0	0	Parsley.....	dozen 4 0 0 0
Brussels Sprouts.....	1 sieve 0 0	0 0	0	Peas.....	dozen 0 0 0 0
Cabbage.....	dozen 1 0	2 0	0	Potatoes.....	quart 1 0 1 0
Carrots.....	bunch 0 0	0 0	0	Peas.....	bushel 4 0 0 0
Cauliflower.....	per 100 0 0	0 0	0	Edney.....	do. 4 0 0 0
Calmar.....	dozen 0 0	0 0	0	Radishes.....	dozen 1 0 1 0
Celery.....	bundle 1 0	3 0	0	Rhubarb.....	bushel 0 4 0 0
Corn.....	dozen 2 0	4 0	0	Salsify.....	bushel 1 0 0 0
Cucumbers.....	each 0 0	1 0	0	Scorzonera.....	bundle 1 0 0 0
pickling.....	dozen 0 0	0 0	0	Seakale.....	bushel 0 0 0 0
Endive.....	dozen 2 0	0 0	0	Shallots.....	lb. 0 2 0 0
Fennel.....	bunch 0 0	0 0	0	Spinach.....	bushel 0 0 0 0
Garlic.....	lb. 0 0	0 0	0	Tomatoes.....	dozen 2 0 0 0
Herbs.....	bunch 0 0	0 0	0	Turnips.....	bunch 0 0 1 0
Horse-radish.....	bundle 0 0	4 0	0	Vegetable Marrows.....	dozen 2 0 4 0



## WEEKLY CALENDAR.

Day of Month.	Day of Week.	JULY 29—AUG. 4, 1895.	Average Temperature near London.			Average Temperature near London.				Average Temperature near London.				Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	
29	TH	Shrewsbury Show opens.	74.0	51.4	62.7	29	4	29	4	29	4	29	4	210
30	F		75.3	50.9	63.1	30	4	30	4	30	4	30	4	211
31	S	Southampton Show opens.	74.9	50.0	62.4	31	4	31	4	31	4	31	4	212
1	SUN	19 SUNDAY AFTER TRINITY.	75.4	50.4	62.9	1	4	1	4	1	4	1	4	213
2	M	Bank Holiday.	75.5	50.5	63.0	2	4	2	4	2	4	2	4	214
3	Tu	Sedgeley Show.	74.9	50.5	62.7	3	4	3	4	3	4	3	4	215
4	W	Weston-super-Mare Show. Royal Horticultural Society—Fruit and Floral Committees at 11 A.M.	75.9	50.5	63.5	4	4	4	4	4	4	4	4	216

From observations taken near London during forty-three years, the average day temperature of the week is 75.1°; and its night temperature 50.5°.

## HINTS ON ROSE-CULTURE.

We are greatly indebted to those gentlemen who visit our large Rose shows and supply us with the names of the most promising new varieties, but there are many Roses that charm the eye when exhibited in a prize-stand which prove comparatively worthless when cultivated in an ordinary flower garden.

Nothing is more fatal to the popularity of a Rose than a weak constitution, and yet some of the weakest growers produce flowers exquisitely lovely; *Mdlle. Bonnaire*, *Marquise de Mortemart*, and *Horace Vernet* are types of this class, and when transplanted from the nursery to the garden how often is it the lament of the purchaser that they become smaller by degrees but not beautifully less.

I recommend to those who are desirous of growing the charming weaklings to greater perfection the following plan to attain their object:—Select a plot of ground which has been deeply trenched and well manured a short time previously, plant it with young, clean, *Manetti* stocks, 24 feet apart each way, and on these bud the Roses as close to the root as possible, and never transplant them, for they are too weak to bear it. Out-back hard in the spring in the usual way, and the result in nine cases out of ten will, I believe, be highly satisfactory.

Strong growers are sometimes condemned as weak by those who have purchased a plant or two which does not happen to thrive. The best way to arrive at a just conclusion as to the relative vigour of different sorts is to visit a nursery where Roses are grown by the thousand, and go through them row by row and take notes: whether strong or otherwise can be seen at a glance. As this is the month for budding, it may be worth mentioning that strong plump buds will generally produce stronger plants than will weak buds. Several Roses condemned by me last year have greatly improved this—notably *Beattie Johnson* and *Madame Lacharme*; both, however, spoil quickly with either hot sun or rain.—H. DUDDERIDGE, *The Dorset Nurseries*.

## FURTHER NOTES ON PEARS.

I read with pleasure Mr. W. Taylor's interesting paper on dessert Pears. No doubt some good practical results would arise out of an election of Pears, as then the sorts generally grown would be more widely understood, and the sorts marked excellent or good from the greatest number of places would be those that might be planted with the greatest safety.

About the time that I first began to take an interest in Pears no opportunity was allowed to slip in order to gain all the information that I possibly could, either from books or by testing the fruit at different seasons where good and correctly-named collections were grown; and after planting most of the standard sorts the result of their fruiting has been very differing from the expectation raised by the information previously gained.

No. 795—Vol. XXII., New Series.

One of the most fickle varieties known to me is *Knight's Monarch*; it is described in the fruit catalogues as "hardy, melting, and excellent;" and in the new edition of the "Fruit Manual" it is said to be one of the most valuable of Pears. I have tried it in three different ways: First on the wall, where it has borne fruit for three or four seasons; each time the largest proportion of the fruit remained hard until the end of the season, when it has been necessary to throw it away. Secondly, as pot trees in the orchard house, where the fruit grew to a much larger size, and was carefully gathered at the right time, but the result was exactly the same as to the ripening of the fruit. In pots where they were removed out of doors, and the fruit ripened as a pyramid, it is quite the same. Now, it is not the soil, as the loam used for the pot trees is different from the garden soil, and the climate must have been very different in the orchard house from that out of doors, and the climatal conditions of a wall facing west is different both from the orchard house and from the open garden where the sun and wind acted upon the trees at any time. This year a large portion of the fruit dropped off from the wall trees before it was ripe, and I noticed in the answers-to-correspondents columns that others were in the same predicament, and also that their fruit failed to ripen satisfactorily. If anyone has ripened this Pear well during the last few years, information as to how the fruit was grown and the nature of the soil would be very valuable.

I tasted fruit of it in the most splendid condition some eight or nine years ago at Hallingbury House; Mr. Spivey, the gardener, could, no doubt, let us know if the fruit ripens well every year with him. He has a splendid collection of Pears, and could give your readers most valuable aid. There is a printer's error in the "Fruit Manual," the year 1850 should be 1830.

Take another useful Pear of quite a different character—*Beurré Boss*. Dr. Hogg hints that the fruit is not of good quality unless the tree is grown against a wall; and the principal fruit catalogues seem to hold a similar opinion. We have not grown it at Loxford in such a position, but there is a large standard tree in the garden which annually bears large crops of fine fruit which ripens in October and November, and is always good. It never fails to ripen well, and the tree has not failed to produce a crop for the last twelve years.

I would name *Marie Louise* as the best and most useful of all Pears; it is excellent on walls, as a pyramid, and grown as a pot tree in the orchard house. *Beurré Superfin* and *Doyenné du Comice* are splendid Pears on a clay soil, but in our light soil they cannot be recommended. The fruit has been good once or twice, but it is always uneven in size, and generally cracks badly; but I must reserve the information about other varieties until it is decided how and at what time the information is to be sent. If the Editors can be advised to issue printed forms to the principal fruit-growers I have no doubt they will heartily respond.

I have frequently urged the importance of summer pruning upon the readers of the Journal, and am more

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than ever convinced of its importance, especially in the case of overluxuriant trees. It is not desirable to allow the shoots to grow until the trees are a thicket of young wood, and then to begin and thin the growths out all at once. I have done this when trees had been neglected rather than allow the growths to remain until winter, and the crop has not in the least suffered; that is apparently, because it is not reasonable to suppose that the check the tree would receive by having so much young wood removed at one time would not set unfavourably in some way or other.

If continuous crops of excellent specimens are to be produced it will not do to neglect the trees. In shallow soils they often suffer for want of water at a time when moisture at the roots is most required. A good plan is to mulch round the roots with short manure; this not only retains the soil's moisture, but, if it is necessary to water, evaporation is arrested. It is also a good plan to syringe the trees daily during the hottest of the summer weather; this is a great aid to the swelling of the fruit, and is even more necessary when the trees are grown upon a wall.—J. DOUGLAS.

### AN INQUIRY ABOUT FOREIGN PINES.

ALLUSION having been made by Mr. Douglas to the good quality of the Pines now imported from St. Michaels or elsewhere, and which to a great extent have supplied Covent Garden for the last year or two, and which seem by their good appearance to be likely to have an important influence on the trade of those who grow such fruit for market in this country, and possibly may also induce some who grow this valuable fruit for private use to give up doing so. In fact, I am much mistaken if their growth be not already partially abandoned. It would be well to ask the question, In what way are these fine-looking Pines grown, and what are their merits at table as compared with home-grown fruit of fair quality? This latter question is not the least important one, for although we know the Pine is very often placed on the table to look at, its merits when cut are invariably criticised. It is only fair, therefore, that a comparison between imported and home-grown fruit be made known. Doubtless the former is not so good as it would be if allowed to fully ripen before being cut, as it must of necessity be separated from the plant say a fortnight or more before it is quite ripe; but taking into account the brighter sun and more agreeable climate it enjoys during its growth to what it does in our confined hothouses, I expect it can afford to give a certain number of days that may be fully said to be blank in its ripening period, and still equal, if not excel, ours. How far this is the case remains for those to decide who have the opportunity of tasting several fruits of both kinds. One thing certainly must be said in favour of the foreign production—they are exceedingly well managed, and they differ widely from those we were in the habit of seeing years ago; in fact, the sudden change is such as to puzzle us to know how quickly they had arrived at such good cultivation in the quarters they are now grown at. Moreover, one or two of our choicest home varieties are amongst them, that the question arises, Did they take the stock from here? Certainly we never heard of Pines being grown there before the last two or three years, and now they seem to be produced in abundance.

Coming now to another feature of the inquiry, which is Under what circumstances are they grown—in the open air or under shelter of some kind, and in what way? I confess being not a little curious this way, for Pines have been a favourite fruit with me, and to see them growing in an open field and throwing-up their fruits like heads of Rhubarb running to seed must be a rare sight to those who have not seen such things. Moreover, when we bear in mind the small-sized fruits we used to be accustomed to see arrive each summer from the West Indian islands, and knowing the tropical character of these islands, we were not prepared to see such an advance in quality from another island not so favoured in tropical heat by several degrees. It would be wrong to suppose that the whole thing is only a trading trick, and that only a few of the very best are sent here at a loss to those who sent them, but merely to serve some other end, as, I believe, the first Australian preserved meats were sent here at a loss to obtain the custom. But these Pines are too numerous for that. Neither do I for one moment expect that any dodge is practised or attempted, but that an exceedingly good mode of managing them has been discovered and acted upon; hence the result.

The question then is, How are they managed, or rather grown? What does the climate resemble, and what the soil? A great many years ago the Pine-growing world was startled by being told that somebody in France produced very fine Pines grown in pure peat, and for a time peat was all the rage in England; but that hobby quieted down, and a soil of a contrary kind is more generally used. But what do our gardening friends at St. Michaels or elsewhere grow their Pines in, and how do they treat them? I can hardly expect that rudely planting a few suckers in ground scarcely disturbed by cultivation and leaving all the rest to Nature will produce these fine Pines, although it will, no doubt, insure small fruit; and whether they grow them in the full sun, and where that luminary has the unchecked privilege of heating and baking the earth to the utmost limits that roots descend, or whether irrigation is practised and when? How or when are all the forces of artificial cultivation put in operation, or to what extent these helps are made to assist Dame Nature in producing what we so much admire? Furthermore, Are any means used to ward off the plague of mealy bug and white scale we have so often to wage war with in hothouses?

I confess not having had many opportunities of witnessing foreign fruit from St. Michaels, but what I have seen seem exempt from these pests, which West Indian Pines were not. In fact, if someone would give us a chapter on the growth and management of the Pines of which such good examples have been sent from abroad to Covent Garden Market and elsewhere, they will confer an interesting benefit on home growers. Moreover, they need not be afraid of any trade competition by our following their practice here, for the many degrees of latitude as well as other conditions preclude such a thing; but it will be at least satisfactory to learn how much of the credit of the fine fruit is due to the cultivator and how much to climate. As it is, we can only guess the proportion accorded to each; but it may be complimentary to the grower to say, that in the absence of other information we are inclined to give him a larger share of the credit of producing such fine fruit than is accorded to that of any other grower of tropical produce, whose only claim to attention is too often that they do not hinder Nature in her works, but to assist her to any extent, a dislike to labour were to form their only exertion.

It would be well for those contemplating large and extensive Grape houses in this country, to look round and ascertain if there is not some nook or corner in this world within a few days' steam of England, where Grapes equalling or excelling the best home-grown are not likely to be furnished at some day not far distant in the abundance and good quality as the Pines are which we have been so recently treated with. That such a thing is possible no one who has witnessed what has been done of late years will deny; and when we take into consideration the popularity, not to say the absolute use of the Grape in many cases of illness, we need not be surprised if someone bent on discovery should not make the attempt; with what success time alone will determine. If I were disposed to make a bet it would be that such a spot would be found out yet before the North Pole.—J. ROSSON.

### SEVILLE LONG-POD BEAN.

I was glad to see from "W.'s" interesting notes of the Royal Horticultural Society's Chiswick Garden that this Bean maintained the high character formed of it in preceding trials. "W.," and no doubt many of your correspondents, will be interested by an account of its doings in other than its first trial grounds. I hail from nearly three hundred miles further north, and 500 feet above sea level. I confess to entering it in the list with Early Long-pod with no little forestalling of the result. This it may be considered an unsatisfactory way to treat a new aspirant, and not likely to lead to a just estimate of the merit, as compared with older varieties, of novelties. The condition of culture, soil, and site being the same, certain evidences of merit will in the end manifest themselves in the kinds subjected to trial. Facts will result, and these are such stubborn things that prejudices conceived in favour of the old or new must succumb to them.

I will briefly state the facts deduced from a trial of the Seville and Early Long-pod. They were both sown on the 19th of March; the Seville had beans of a size fit to gather on the 10th of July, and the Early Long-pod on the 15th of the same month. The number of pods upon a plant of Seville twelve, and the number of those upon a plant of Early Long-pod fifteen. These numbers are a fair average of the pods

borne by plants of each kind. The length of the pods when the beans were of the size named were of Seville 9 to 10 inches, and of Early Long-pod 7 to 8 inches. The greatest number of beans in the pods of Seville and of Early Long-pod were six, and the main of the pods of both contained four beans. The colour of the beans in Seville is green, not quite so deep as in Green Windsor, whilst the colour of the beans of Early Long-pod is greenish white, and the usual mud colour when cooked. The height of the haulm in Seville is 8 feet, and the plant is of procumbent habit, which does not give a greater height to the plants as they stand than 2 feet. Early Long-pod has the haulm erect, and 4 feet high; stiff and strong. The beans in Seville are about twice the size of Early Long-pod, and the pods are much larger; the pods are, in fact, "whoppers."

I am informed of a pod of Seville grown in a neighbouring garden measuring 18 inches in length with the beans of full size. Conclusions are inevitable. Mine are that the Seville Broad Bean—from its earliness, size, and colour—merits the first place in the list of the Long-pod section.—G. ASBURY.

### AND YET MORE ABOUT ROSES.

I wonder whether Mr. Radclyffe has ever heard of the very expressive Irish word "blarney," and if he has, as no doubt he has, whether it has ever entered into his mind to think that the gentleman who told his housekeeper that the Roses at the Crystal Palace Rose Show were a joke to those at Okeford Fitzpaine was guilty of that hibernianism, and had been working on the imagination of his faithful dependant. Perhaps the gentleman himself had a little Irish blood in his veins, and liked to lay the gentle flattery on thick while he was about it. Really, if these said Roses are so fine, it is a pity that Mr. Radclyffe does not charter a special train. More than fifteen thousand people went to see the Roses at the Crystal Palace, and all who were not ticketholders had to pay 2s. 6d. each; and if it could only be made known to the British public that the feast of Roses there provided by Messrs. Paul, Turner, Keynes, Cranston, Prince, and Co., to say nothing of the twenty to thirty best amateurs in the country, was a mere nothing—only a joke—to what might be seen at Okeford Fitzpaine, why surely the said British public would only need the hint of a special train to come and admire those wonderful Roses to their heart's content.

Well, after all Mr. Radclyffe is right. Taste in Roses is a mere matter of opinion, and perhaps the gentleman who had been to the Crystal Palace Show did not admire long rows and large boxes of Roses in single blooms, and preferred to see them growing at their sweet will. Mr. Radclyffe's faith in nurserymen's catalogues and descriptions of Roses must be very great if it has not received a severe check ere this. How else will he account for the numbers of Roses that have come to us even from the best of raisers, ticketed large, superb, fine shape, splendid colour, free grower, glowing crimson, or deep maroon, &c., and which are now utterly unknown to fame? Has not even Mr. Radclyffe in years gone by recommended in glowing terms Roses that he would hardly admit into his garden now? I say this, however, with a certain degree of trepidation, as Mr. Radclyffe is like an old soldier—he sticks by his colours, and does not like to give up an old favourite. Well, whatever Mr. Paul's opinion may be of Abbé Bramerei as established among old favourites, all I can say is I never saw a bloom that was not rough and coarse—coarse not from size, but from unevenness of petal and raggedness of outline. A box of twelve was staged at the Crystal Palace at the last Rose Show to compete among twelve of new Roses, and we fairly presume that whoever exhibited them considered them good specimens of their kind, but there was not one good bloom among them. Of *Maxime de la Rocheterie* I cannot speak so confidently; but I know whenever I have seen it either growing or exhibited, and the latter has been very rarely, I have always put a cross against it as not worth growing. Of *Baron Chaurand* I am not much of a judge, as I have never yet seen a good bloom of it and do not grow it myself; but all I can say is that those blooms which I have seen have not left a favourable impression; it seemed to me dull in colour and deficient in size and quality.

Now let me venture to say that size has not necessarily anything to do with coarseness. No one ever saw *Alfred Colomb*, or *Marie Baumann*, or *Dupuy Jamain* coarse from being too large. On the contrary, the better a Rose is intrinsically, the better, that is to say, in form, in substance, in freshness of colour, in smoothness and evenness of individual petal, &c.,

the larger and finer it is grown the more these inherently good qualities come out. I may not have made my meaning very clear, but what I would wish your readers to understand is that, as a general rule, a large *Alfred Colomb* is better than a small one, a large *John Hopper* than a small one, a large *Madame Vidot* or a large *Marie Baumann* than a small one. But there are Roses not intrinsically good of themselves which are not improved by size—a large *Paul Neron* is worse than a small one, a large *Edouard Morren* or a large *Madame Masson* than a small one. I enter upon this at some length, for I have known a really fine stand of Roses discarded for a set of small compact blooms, when the latter would never have been equal in quality to the former when expanded. The smaller, as a rule, the bloom of a good Rose the less is the middle of the Rose filled up with petals. This to many of your readers who are accustomed to judge Roses may be a mere truism; but there are some of our very best Roses which, when small and badly grown, are only semi-double, and show a yellow eye when they begin to expand.

I cannot at all agree again with Mr. Radclyffe as to the value of very dark Roses. I should not care to multiply *Jean Cherpin*, *Pierre Notting*, *Prince Camille de Rohan*, *M. Boncenne* about my garden. A few really good dark Roses such as those named are very useful, but the most valuable colours are those of the type of *Alfred Colomb*, *Madame Victor Verdier*, *Duke of Wellington*, and *John Hopper*. Some of our pink Roses are unfortunately too thin in the petal, and do not stand a wet weather, as *M. Noman*, *Centifolia rosea*, and others. But, then, on the other hand, dark Roses, like *Empereur de Maroc*, *M. Boncenne*, and even that beautiful-coloured *Rose Xavier Olibo*, burn in hot sunny weather, and will not even stand a day's sun.

I agree with Mr. Radclyffe in his estimate of the value of *Madame Vidot* and *Cécile de Chabillant* as model Roses, but do not think the others are at all equal in form to *Marie Baumann*, *Alfred Colomb*, *Marie Rady*, or *Charles Lefebvre*.

As to button-hole Roses, I do not see how Roses such as *Mme. La Baronne de Rothschild*, *Charles Lefebvre*, *Eugénie Verdier*, *Madame C. Joigneaux*, even in the bud form, can be considered as button-hole Roses, as in a very short time they would expand when worn. *Safrano*, mentioned by another correspondent, is undoubtedly good, and so are *Narcisse*, *La Boule d'Or*, and small flowers of *Cécile Forestier*, but I think this has been named before.

Let me add a few more words with regard to the matter of coarseness. What, it seems to me, we want to eliminate from large Roses is unevenness, irregularity of petal, roughness of outline, imperfection of shape and quartering. Some Roses are seldom clear of these faults; some, again, are beautiful in their semi-expanded state, but show too much centre when they open fully, as *Louisa Wood* or *Madame C. Joigneaux*; but we must be careful lest in trying to eradicate these faults we revert to Roses that are too hard and full in the bud to open well, or in trying to get rid of roughness have petals too thin and flimsy, which will not stand either sun or wet.—C. P. P.

### MANURE AS A SURFACE DRESSING.

THE application of manure as a surface dressing to almost all kinds of crops has long been acknowledged as beneficial, and its good effect upon certain plants has occasionally been set forth in this Journal. So far as I am aware, however, no attempt has been made to show why it is worthy of general attention, to explain its action, or in other words prove that it is of even greater assistance to many crops than if it were mixed with the soil and buried after the usual fashion. In doing this I will state at the outset that it is only during the last two or three years that I have given particular attention to this matter, and it may not prove uninteresting if I state my reasons for doing so.

Some two or three years ago the Rev. C. P. Peach took exception to some notes contributed by me on Strawberry culture, in which it was advised to dig-in manure among the plants immediately after the crop was gathered, on the ground that surface dressing was decidedly preferable. Now, although I considered and maintained at the time such adverse criticism to be faulty, not in spirit but in matter, yet it afterwards repeatedly occurred to me that assertions from one whom I have the strongest reasons for regarding as a decidedly safe authority in matters horticultural ought not lightly to be passed over. Further consideration led to a determination to repeat former trials, and to thoroughly sift a matter so simple and

yet so important. With regard to the Strawberries I am free to own that the trials have proved Mr. Peach to be right as regards the surface dressing, the fruit of several kinds which are now being picked from beds so treated being both abundant and fine; and in making this confession I beg to offer my best acknowledgments to Mr. Peach, not only for the saving of labour which the plan enables me to effect, but for directing attention to a matter of such great importance to other crops as well as Strawberries.

Let us now proceed to consider why the surface dressing is so desirable. It is a fact familiar to all that all parts of the roots, especially the spongioles, shun the light and air. Now, it is to the spongioles, the plant's mouths, to which we wish to convey nutriment as directly as possible; and yet they are often so far beneath the surface that we cannot readily reach them, for if we attempt doing so by a temporary removal of the soil other rootlets are inevitably destroyed in the process. Another most important reason for wishing to have the roots near the surface is, that it is there that the best soil is found, and we know that if we can only induce the roots to come up into it we shall impart additional health, vigour, and fruitfulness, which it is, of course, highly desirable to secure by any means, but especially by an agency of the simplest and best kind; and when the roots are once established at the surface we have only to attend to their requirements to keep them there.

For most fruits an annual surface dressing, applied generally in the fall of the year, is all that is necessary, but if an additional stimulant is required sewage may be applied with the certainty of its being immediately beneficial. Who does not know the inutilty of pouring sewage upon the surface of a deep Vine border lying bare and exposed to the hardening influence of sun and wind? It is true that the roots may be reached by the barbarous method of piercing holes with a crowbar, but even then the Vines cannot derive a tithe of the benefit which attends surface-feeding. The action of the nutriment cannot be so immediate, nor the flow of sap so prompt.

As examples of its effects in actual practice I may instance three vineries in all of which the Vines were in a somewhat weakly condition owing to the poverty of the soil. As a remedy, the borders of two of them received a dressing of loam, crushed bones, and stable manure; but the third border instead of this mixture had a liberal surface dressing of rich pig dung. The result in the following season was striking and conclusive, the Vines in the third house being wonderfully superior in berry, bunch, and foliage to those in the other two houses. Take for another example two beds of Gooseberry bushes: the first was planted in soil suitably enriched with manure, and an annual dressing was afterwards forked-in among the roots each autumn after the fall of the leaf; the second was planted in a similar manner but two years later, the soil was never afterwards disturbed but received an annual surface dressing of manure. In two years the bushes were as large as those in the first bed, and the crop of fruit was decidedly the best. Other examples might be quoted of trials with Raspberries, Currants, Roses, and many other plants if it were necessary to do so. Its good effect upon summer vegetables was explained long ago; in fact, it is not to advocate a novelty or to propound a theory of my own that these notes are written, but rather to draw particular attention to a point of culture which from its very simplicity is not practised so much as it so richly merits.

In concluding, I cannot do better than revert to the principle which it is written to enforce—that both plants and fruit trees answer best when the roots are kept near the surface, and that this is done most advantageously by a surface dressing of manure, which serves to draw the roots upwards as well as to nourish them. It by no means follows, however, that surface roots are only to be obtained by the application of rich manure; a covering of any kind of litter will effect this. A knowledge of this fact has been turned to account in the management of an orchard containing some four or five hundred young fruit trees, the roots of which are kept near the surface by taking the weeds and leaves which accumulate upon the surface and putting them upon the soil around the base of each tree. A saving of labour is thus effected, the orchard is kept tolerably neat, and the trees are undoubtedly much benefited.—EDWARD LUCKHURST.

**MUSHROOMS.**—Two Mushrooms (*Agaricus gambous*) were gathered in my field last night, of which I send the dimensions,

as they seem to me out of the common way. Circumference, 28 inches; diameter, 9 inches; girth of stem,  $3\frac{1}{2}$ ; weight, 1 lb.  $3\frac{1}{2}$  ozs. The second is rather smaller, but thicker, and weighs about 1 lb. Both are excellent edible Fungi. No doubt this is an extraordinary year for Mushrooms, but are not these of a rather exceptional size?—A. R., Bromley.

[The year has been prolific of all species of Fungi. Even in the north of England the markets were supplied largely with the common Mushroom as early as the first week in July.—Eds.]

### HOME-MADE FLOWER POTS.

GLASS pots, and slate pots, and clay pots, clean pots, and dirty pots—even teapots—have lately been mentioned as adaptable to plant culture. Possibly all are good for certain purposes and under certain circumstances, and so also are the home-made pots which we now notice. The pots we have in hand oppose the notions of those who consider a clean pot essential on the one hand, and a densely made or glazed pot advantageous on the other. The home-made pots are emphatically dirty pots and pre-eminently porous pots, and, what is more, both these qualities are virtues—yes, are the very essentials of the pots. These pots are noticed, not because they are novel or fanciful, but because they are cheap and useful—qualities which must command attention where small pots are employed by hundreds of thousands for the preparation of bedding plants.

The most complete mode of making these pots which we have yet seen is that which is adopted by Mr. McIntyre, the Superintendent at the Victoria Park. The models which were recently exhibited we have had engraved, and thus we place before our readers in an intelligible manner this simple and

FIG. 1.



FIG. 3.

FIG. 4.

FIG. 2.

Fig. 11.—Models for Home-made Flower Pots.

useful mode of pot-making. Fig 1 is the model, which is made of tin. It is  $2\frac{1}{2}$  inches in width at the top and  $1\frac{1}{2}$  inch at the bottom, inside measure, and about  $2\frac{1}{2}$  inches in depth. Fig. 2 is the pot when made. Fig. 3 is the bolt, which is about 5 inches in length of half-inch round iron, to which is soldered a shield of stout tin an inch in diameter; this shield is an inch from the end of the bolt. Fig. 4 is the mould (inverted), which is made of wood, the upper part to form the handle, the lower part being the mould or plug; the size of the plug is  $1\frac{1}{2}$  inch across the top and an inch across the bottom, and  $2\frac{1}{2}$  inches deep. These it will be seen are all easily made.

Now to their use, but first as to the material. This is a composition of strong loam—not clay—a little leaf mould and cow dung. The loam and leaf mould may be in the same proportions as if required for a potting mixture for the plants, and the cow dung may form about one-tenth of the bulk. This when well mixed and tempered, using water as required, is

ready for use. We are now at the potting bench. Bore a hole through the bench, and put the bolt No. 3 into the model No. 1, and the shank of No. 3 into the hole in the bench; put into the model a lump of the composition, pressing the plug No. 4 into it, and by holding this with one hand, and turning the model with the other, the shape of the pot is obtained. By pressing the bolt upwards the shield pushes the pot No. 2 out of the mould in a perfect state.

With a little practice a man and two boys will make a great number of pots in a day. The pots when finished are about a quarter of an inch in thickness. When dried they can be stored the same as are fire-burnt pots, so that their manufacture can be entered on at any convenient time, and is profitable work in inclement weather. The size given is for Lobelias, Alternantheras, Verbenas, and other spring-struck plants which do not long occupy the pots, but of course size can be determined according to the nature of the plants. They are dried in the open air, and in fine weather are ready for use shortly after being made.

Previous to bedding-out the plants are watered and the pots are planted in the ground—that is, the plants are not turned out. The porous pot absorbs the moisture and becomes soft, and the roots grow through the sides into the surrounding soil. Even when the pots are standing closely together in a frame and are kept moist the roots protrude through the sides. Plants prepared in these pots are found to flourish in all respects as well as do those in the ordinary fire-burnt flower pots.

It is premature to note the flower gardening at Victoria Park, as the plants are washed out of character by the drenching rains, but there are beautiful combinations which require sunny weather to perfect them, and which will then rank amongst the finest examples of modern bedding.

### IN AND OUT OF LEICESTER.

A CROAKING old Leicestershire farmer has recited to me the old quatrain—

"When the sand doth feed the clay,  
Then for England well-a-day;  
But when the clay doth feed the sand,  
Then it is well with England."

That farmer's land is heavy and rich, on which in the last century Beans were the staple crop. So extensively were they cultivated that the county was locally known as "Bean-belly Leicestershire." So largely were they consumed by the population that in the neighbouring counties a proverbial saying was, "If you shake a Leicestershire man you may hear the beans rattle inside of him."

Bean feasts are said to have been earliest instituted by Leicestershire farmers. They feasted their labourers at the conclusion of the Bean harvest, which being late in autumn the crop is liable to be injured by the wet weather then prevalent, so they rejoiced when all the Beans were in safety. The notoriety of the county for Bean culture is of many centuries' existence. It has given a name to places and even townships. Bean Hills is a manor; and of Barton-in-the-Beans, Mr. Burton, the earliest topographer of Leicestershire, says "It is so called of the great store and increase of that grain in this place, yet the old shire yieldeth great abundance of Peas and Beans more than any other county, insomuch that there is a common byword of the same, commonly known to all men—namely, 'Leicestershire bean-belly!'"

I have seen an average acreage of Beans this year about Leicester, and they and Oats are the only seed crops that have not suffered by the heavy and continued rains, yet I do not arrive at the croaking farmer's anticipation that the light-land crops must be superior in produce to those on the heavy. A few windy days and a hot dry fortnight now will restore an upright position to most of the prostrated grain crops. Then, all along the eastern margin of the northern counties I can attest that in the three first weeks of July there was no excess of rain, and a letter before me tells the same of Scotland, and that much of the hay has been secured without a shower on it. Potatoes in the same localities are abundant and healthy.

Abundance of Bean blossoms may have suggested and been one of the sources which supplied the honey the Anglo-Saxon monarchs claimed from the town of Leicester, which "Domesday Book" tells was fifteen seeterces annually.

A short and pleasant walk led to the ruin of Leicester Abbey, and he must know little of England's history during the Tudor period who, as he looks upon the ruin, has not called to his

remembrance the words of the fallen Wolsey to the monks—"I am come to lay my bones among you." No man is without some good qualities, and among those of Wolsey was his encouragement of gardening. A contemporary versifier represents the Cardinal as saying—

"My gardens sweete are closed with walles strong,  
Embanked with benches to sit and take my rest,  
The knots so enknotted it cannot be expressed;  
With arbors and allies, so pleasant and so dnice,  
The pestilent airs with flavors to repulse."

In tracing Wolsey's career I have gathered many other notes illustrative of the circumstances of those days. Even his expenses are records of prices. Chickens were 2s. a dozen, pigeons 15d. for the same number, a peck of Filberts 1s., one hundred Pears the same money, a goose 7d., one hundred Walnuts 2d., three Cabbages 2d., and Grapes, herbs, Onions, salt, and sauce, quantities not specified, 2s.

I had no leisure for searching after plants Dr. Pulteney, the well-known botanist, tells of being found near the Abbey, nor to visit Mount Soar-Hill where he was born, but I have read his notes in the "Philosophical Transactions" on "The more rare plants of Leicestershire." He died on the 18th of October, 1801, and was buried at the village of Langton in Dorsetshire, but a memorial tablet in the church of Blandford, where he practised as a physician, bears the appropriate portrait of his commemorative plant, the Pultenaea, and beneath it this inscription:—"This tablet is erected in memory of Richard Pulteney, M.D., F.R.S., who, after thirty-six years residence in this town died on the 18th of October, 1801, aged seventy-one. That modesty for which he was remarkable through life forbade any eulogium on his tomb; but he will long be remembered with gratitude and affection both as a physician and as a friend; and with the truest reverence and sorrow by Elizabeth his afflicted widow, daughter of John and Elizabeth Galton, of Shapwick, Dorset." He bequeathed legacies to various institutions, his museum to the Linnean Society, but the chief part of his library was sold by auction in 1802. His MS. "Flora" is in the Leicester Museum.—G.

### ROSES.

I HAVE bloomed St. George and Souvenir de John Gould Veitch since I last wrote; they are both high-coloured and excellent. The first is nicely scented, which cannot be said of the new Roses generally. The finest-scented Rose, and the finest of all Roses lately raised, is Louis Van Houtte (Lacharme) and Baron Chaurand. The scent of these Roses is equal to the Teas; the last I think is superior in scent to most of the Teas. It does splendidly on the seedling Briar. I have grown some noble specimens of it. I shall buy twenty more of it on the seedling Briar. I do not think it does well on the Manetti. I must now thank M. Lacharme for raising these fine Roses—Charles Lefebvre, Alfred Colomb, Louis Van Houtte, and Madame Melanie Willermoz; they are all first-rate.

These also are good—Victor Verdier and Baron Adolphe de Rothschild. The next is very curious, Anguste Vaucher; the base is deep fulvous gold, and the tips of the petals pure bright copper. If he raises no more he will have done enough. I hear well of his Rose Capitaine Christy. I have bought his Rose Souvenir du Baron de Semur.

I am glad Mr. Peach suggested the affixing of the names of the raisers. I will not buy unless I see the raiser's name. Seeing Lacharme's name I bought the last Rose, and because we want more high-coloured Roses. Baron de Semur and Star and Queen of Waltham are the only novelties that I have bought this spring.—W. F. RADCLIFFE.

### CUTTINGS.

Do we not make serious mistakes about the best time for putting in cuttings? Take the case of Roses. The usual time is to put the cuttings in about October or November. I am of opinion that July is a far better time. When the plants are full of organisable matter cuttings will callus sooner, and if other circumstances are favourable roots will be more readily produced than later on when the plants are going to rest. Recently I have been trying the experiment, and though it is too early to express a positive opinion, I have seen enough to induce me to pen this note with a view to encourage others to try the experiment at once, and to report the results.

It is well known that Pansy cuttings put in as early as possible root almost to a certainty. Pippings of Pinks, &c., if put in as soon as they can be obtained are far more likely to

root rapidly and to do well than if put in later. This is a matter of much interest, and if my views are right I think it will be found that Roses on their own roots may be raised with more ease and certainty than is generally supposed.—PHILANTHES.

## ROYAL HORTICULTURAL SOCIETY'S SHOW.

JULY 21st.

ONE or two points of interest at the grand Exhibition so well described in last week's Journal deserve notice. It is not possible when an exhibition is so extensive to describe anything minutely, and I now add a few remarks on the fine show of Carnations and Picotees.

There is a National Carnation and Picotee Society located in the midland counties, but a Midland Counties Society would be a better name for it, as it cannot touch the south, as our blooms will be quite over before their Show is held. The third week in July is a safe date for London, and on that week the Royal Horticultural and Metropolitan Floral Societies offered prizes—not prizes sufficiently large to bring growers from a long distance, nor were there many classes, but Mr. Turner sent a large number of stands for exhibition, and there was some competition in all the classes. It would be a grand day for the florists when the Society offers the same amount for a stand of twenty-four distinct Carnations as it does for a collection of fruit and twelve stove and greenhouse plants. Modern gardeners would laugh at the bare idea of such a thing, but this was done thirty years or more ago, and Mr. James Hogg of Paddington obtained the gold Banksian medal for his Carnations and Picotees at one of the Chiswick exhibitions.

Some of the flowers at the recent Show were very fine, and the new varieties have proved again to be a decided advance on some of the old sorts. Beginning with Carnations. *Scarlet Bizarres*.—The new sorts, Guardsman (Turner), Mars (Hextall), and Mercury (Hextall), will hold the highest position in their classes for many years at our present rate of progress. *Crimson Bizarres*.—Isaac Wilkinson (Turner), and Marshal Ney (Headly), are the leading new flowers. In *Purple Flakes* Ajax (Hextall), is superb, and is decidedly the best in its class. *Scarlet Flakes*.—This is a showy class and already contains good flowers, but all of them are wanting in fullness; however, Mr. Battersby (Gibbons) and Superb (Ingram) are indispensable. *Rose Flakes*.—This is a charming class, and contains some of the finest Carnations in existence. Mrs. F. Burnaby (Turner), is a charming flower, very distinct in its colour; it is of the softest pale rose, large, and full. Phœbus (Headly), is also very good; it has bright rose markings.

Turn we now to the Picotees. *Red-edged* comes first. *Leonora* (Fellows), is a distinct heavy edge. Mrs. Keynes (Fellows), a very fine medium-edge with a pure white ground; and *Princess of Wales* (Fellows), is certainly by far the best heavy red-edge in existence, and a most distinct flower. In *Purple-edged* we have a splendid flower in Mrs. Little (Hooper), certainly the finest light-edge ever raised; the white is of the purest, without spot or bar. In the *Rose and Scarlet-edged* class we have some great advances. *Ethel* (Fellows), large, pure, smooth, and full; extra fine. *Juliana* (Turner), is a very fine heavy scarlet-edge, not so large as *Obadiab*, but it has a better petal. Mrs. Allcroft (Turner), this is the best light-edged flower we have—not a bar or spot to be found on its pure white ground. Mrs. Fordham (Turner), this as it bloomed with me this year is a splendid flower; it is a medium-edge, very full, and the petals like leather. The three last-named flowers are great advances and highly creditable to the raiser.

It is a great pity that Mr. Norman has given up the culture of these flowers; and Mr. Pizzy, who also held a high position, has also left the field through removing to another situation. Let us hope their places will be supplied by other ardent cultivators. Mr. B. Atkins is a new exhibitor and showed some fine flowers.

I have extended my notes on this favourite old flower longer than I intended, but have still space for a few remarks about the Floral Committee. No wonder if some mistakes are occasionally found in the reports of this body. Up till nearly three o'clock only numbers were to be found on the largest proportion of the exhibits, and about two one large exhibitor was busy removing his plants somewhere else, and amongst them some that received first-class certificates. It is necessary both for the sake of the public and the exhibitors that a correct report should be given of all new plants and flowers, but as matters are arranged at present it is almost impossible to do so. The system of placing numbers instead of the name of the exhibitor on new plants is decidedly objectionable and can answer no good purpose whatever; and no plants ought to be removed until after the general meeting at 8 P.M.

I noticed a very fine new zonal *Pelargonium* of the Bronze class that has not been exhibited before. It is certainly a great advance on any in its class. It was in the collection of Mr. John Laing, Stanstead Park, Forest Hill. It is named *The Osar*. The leaves are smooth and of great substance; they have a distinct margin of greenish yellow, next a broad band of a

bright chocolate colour and a greenish-yellow centre: it is most effective. Of a different type is Mrs. Harrison Weir, more in the way of *Impératrice Eugénie*, but a much finer variety. The leaves are smooth edged with yellow, with a distinct reddish band; centre yellow. Both these plants are great advances, but I was told the Floral Committee would not grant certificates for them. They were not entered at this meeting because of that.

I may just notice a very fine *Phlox Drummondii*, which I found out afterwards was sent by Mr. B. Dean of Basing. This was certainly also an advance on any I have yet seen of this flower. The old General Radetsky with its beautifully striped flowers was long a favourite, and this new one is a fine companion to it; but it also was passed.

When *Orochids* are exhibited, if they have any beauty at all they generally come in for high honours; but I fancy that the more humble flowers—even a *Phlox Drummondii* or even a *Forget-me-not*, if it is an advance on anything that has been previously raised, should be rewarded with a first-class mark—that is, when its merits are fully proved.—J. DOUGLAS.

## CITY OF LONDON FLOWER SHOW.

To encourage a love of flowers and to stimulate their culture in the closely-pent homes of the city it was determined some few years ago to offer prizes, and have a real flower show in the city, by the city, and for the city. It was a laudable idea, and has been well carried out. The sixth Exhibition was held in the grounds of Finsbury Circus on the 27th inst., and resulted in an interesting collection of window plants and a large amount of patronage. The Show was divided into twenty-five classes of popular window plants, as Musk, Fuchsia, Geraniums, Myrtles, Campanulas, Orange trees, Ferns, Creeping Jenny (*Lysimachia*), &c., also window boxes, and in all the classes there was considerable competition. We observed plants exhibited by little children and hale septuagenarians. Amongst the miscellaneous plants were Wheat, Oak growing from acorn, Tobacco, and a precious Orange plant, marked as growing from a pip sown two months ago, only unfortunately the owner is cherishing something else, for her pet is not an Orange. It is gratifying to find all the plants so clean, and it is clear that pains have been bestowed by the several growers, who richly deserve the liberal prizes. Special prizes were also given—viz., a silver medal by the Royal Horticultural Society for the best plant in the Show, and three bronze medals. The silver medal was taken by G. Moss with a very healthy *Indiarubber* plant, the bronze medals going to Ferns and *Lycopods*, which were very nicely shown. Mr. Smee, Mr. Peacock, Mr. Wills, &c., also offered prizes. Messrs. Paul & Son, Cheshunt, contributed excellent boxes of cut Roses in splendid colour, Sultan of Zansibar and Duke of Connaught being particularly brilliant; and very fine single plants of *Lilium auratum*; and Mr. W. Paul, Waltham Cross, sent beautiful Roses and a bright collection of *Zonal Pelargoniums*. Mr. Peacock, Hammersmith, also staged a collection of his grotesque Cacti, &c. These aids constituted a valuable feature to the Show, and the contributors will feel a reward in the treat they have afforded, and the appreciation of their goodwill in encouraging a thoroughly deserving organisation. The Revs. W. Rodgers, F. Bishop, and a working Committee, with Mr. B. Dean as manager, conducted the arrangements, and Mr. Barron and Mr. Dean were the Judges. The day was fine, and the Exhibition was in all respects as successful as it was worthy of success.

## ROSE SHOW IN NEWTON STEWART, WIGTOWNSHIRE.

NEWTON-STEWART, and through it the surrounding districts, were treated to a novelty on the 19th. Never before had it a Rose Show. When the Rev. G. W. R. Mackenzie of All Saints' mooted the idea of holding such an exhibition to a few friends a month or two ago he was metaphorically frowned upon. It could never be got up—the country was too unkind to produce sufficient Roses to make up a creditable display—it would interfere with the annual Flower Show a month later—it would, in short, never do. But Mr. Mackenzie determined to try; and as a preliminary step set about canvassing his friends and acquaintances, and non-acquaintances, for the necessary money, until he was astonished at his own success. A schedule of prizes was thereafter prepared; and the handsome sums promised therein to successful competitors drew forth hearty support. Messrs. Dickson & Sons of Newtonards, county Down—perhaps the largest Rose growers in Ireland—promised blooms; Mr. R. B. Cant of Colchester, a great grower, also said he would compete and exhibit, though the boisterous weather of the early part of the week caused him to telegraph on Thursday that it would be impossible for him to do so; and nearly all the gardeners attached to the mansion houses in Wigtownshire, and a few in the Stewartry, entered heartily into the project. The local amateurs and cottagers also determined to do their little best; and altogether such promises of competition and ex-



bition were received that, weather favouring, success was certain.

And a success it was. Five long tables were filled with the loveliest Roses of all kinds. There were in all 1015 cut blooms shown, and when to this number are added the Roses in pots, those who had not the pleasure of being present may faintly guess at the splendid appearance the five tables, presumed to be the finest of the kind ever held in Scotland; certain it is that in London and elsewhere in the provinces of England, where Roses are supposed to grow in greater profusion, we have seen very ambiguous exhibitions in every way inferior both as regards variety and excellence. And not only so; but a week or ten days ago the Roses—local blooms at least—would have been very superior to what they were yesterday; wind and rain having played sad havoc with many a cherished tree. But this notwithstanding, the show of Roses from Galloway was in the highest degree creditable; and not until yesterday could we have believed that the province would have produced such a brilliant display of every kind of the lovely flower.

Besides those sent for competition there was a table-load "for exhibition only." Messrs. Kerr & Fotheringham's display was very large and beautiful; that of Mr. Service, Maxwelltown, was also good; and the "exhibited" Roses from Kilmure Castle and Monreith were also very much admired. In the centre of this display was a miniature cottage, "Wigtown Lodge, Barnbarroch," the handiwork of Mr. Henderson, the forester. It was decked out with walks, and made gay with Roses; and during the day it had hosts of admirers. The Judges put a "commended" ticket upon it. A *Yucca gloriosa*, from Logan, was said to be as fine a specimen as is in Britain.

## IN THE WEST COUNTRY.—No. 2.

MR. CURTIS'S NURSERY, TORQUAY.

Mr. impressions of Torquay had been derived from various sources—from the remembrances of those who ever spoke of it with sadness as the last earthly home of those they had loved, where they had been taken to wither and to die; from those, too, who had gone there in the full floodtide of health and life, and had brought back from it glowing accounts of its beauty and salubrious climate, and also from those who have spoken of the facility with which tender plants are cultivated there; and it was, then, with a wonderment of what I should find it to be that the day before the Exeter Show I determined on visiting what in a horticultural point of view I had ever connected with the Tea Rose, and with that most charming of all English-raised Roses, *Devoniensis*.

It were idle for me to attempt the description of its scenery, and I might get a rap across the knuckles too; for I think I have a dim recollection that a certain awful personage who affixes "G." to his papers did, some years ago, in the *Journal* tell of his wanderings in these western parts. Suffice it to say, that although I had heard much about its beauty I was in no way disappointed. The lovely coast scenery of Batcombe Bay and Ansty's Cove must be seen to be appreciated. Living as I did so long in our bleak eastern coast, where nothing but the Tamarisk will thrive, it was indeed a treat to see the coast clothed to the water's edge with luxuriant foliage, and the beautiful contrast of the white sand and the rich red of the rocks, and to hear the cuckoo and the blackbird close to the very shore. Are not all these things written in the guide books? and therefore I must mention those things which pertain to our beloved flowers. Mr. Curtis most kindly met me at the station and took me to see what he has not unworthily styled the Devon Rosery, for there is very little else thought of or cultivated here than the Rose. In these days, when ten and twelve acres and more are devoted to the culture of the Rose, Mr. Curtis's of seven may seem small; but there is much to interest a Rose-grower in the collection that he has gathered together. He himself comes from a family in whom a love of flowers is hereditary, and Mrs. Curtis is a true helpmeet for him in what is both a matter of profit and a labour of love; and it is this long connection with horticulture that makes him so well up in Rose lore. His nursery is intersected by the railway, and his gardens on the north side contain, besides his Roses out of doors, his range of houses which are devoted to the culture of Roses in pots, especially Teas; and as Torquay is a winter residence his object is to arrange his flowers that he shall be able to cut them during the winter months. He has one span-roof in which the Roses are planted out very close, and, running up, cover completely the roof. These were then nearly all out of flower, and the lights were taken off to harden the wood. Two new houses had been built 180 feet each in length, and they were filled with a choice collection of Roses in pots, which were evidently intending to make a bril-

liant and beautiful display by-and-by—not large overgrown plants, but compact half-specimens. Among his favourites were Catherine Marmet, *Devoniensis*, Marie Van Houtte, Souvenir d'un Ami, Adam, Niphotos, &c. We agreed as to Duhauss of Edinburgh that it has very little if any Tea blood in it, and is little else than an improved *Cramoisis Superieure*. There was a long border in which the new Roses were planted, but owing to the backwardness of the season many of them were not in flower, and in those that were we could not discover any very great merit. Thomas Mills is brilliant in colour, and as it is very vigorous may be a useful garden Rose. Duhauss of Edinburgh (Bennett) will, I fear, not be a favourite; it is so very easily spoilt by wet, and neither here nor elsewhere have I seen a good bloom of it this season. Capitaine Christy promised well, but it is, I fear, also very easily spoilt. I have not seen for some time a finer piece of standards; and it would appear others thought so also, for Mr. Curtis had an order for four thousand from one firm alone—a firm, by-the-by, which has 140,000 Roses on Manettia.

We had much pleasant chat about Roses. Mr. Curtis thinks highly of the *Celine* and of a stock called *Donna Maria*, while he is cultivating another of which we may perhaps hear more by-and-by. He did not apparently think so highly of the seedling Briar as some do, although the French have used it for a long time for their Tea Roses, which are so largely grown here. He stated amongst other things in connection with Rose culture that he remembers well a thousand varieties being grown by his father in Essex, and this before the race of Hybrid Perpetuals was known; of these no more than five or six are grown now. It was, I believe, he who introduced *Brennus*, still a handsome summer Rose; while of late years *Bessie Johnson*, a sport from *Abel Grand*, has emanated from this nursery, and Mr. Curtis was the principal distributor of *Climbing Devoniensis*, although it does not owe its origin to him. He is very strong against the scentless Roses, and said Victor Verdier ought to come under the hangman's hand, as to it we owe the many beautiful but scentless Roses which even with this defect we cannot do without. In talking of *Cloth of Gold* he mentioned the case of one he knows in Jersey, which was planted at the base of a rock, and which ran over and covered a surface of 60 feet and was every season filled with bloom, and was indeed a grand sight. I have heard of one belonging to a tenant of Mr. Baker of Exeter, which is grown on his cottage and pruned every year with a hook as high as he can reach.

After lunch we had a pleasant drive to see the lovely coast scenery of Batcombe Bay and to call on my old friend Mr. Gosse, and whom I sincerely regretted to miss. He has a charming little villa, where he rejoices in the culture of Orchids and various other plants; and as the day was fine and the view of the coast lovely it is one to be gratefully remembered, and I only regretted that an engagement at Exeter compelled me to hurry away from my kind friends and hospitable entertainers, and I also regretted that the time at my disposal did not permit me to visit Mr. Veitch's nursery.—D., Deal.

## CATERPILLARS AND GOOSEBERRY TREES.

DURING the present year the Gooseberry crop is one of the largest in my recollection, but it has been sadly marred by the ravages of caterpillars. Many specifics for this I have heard recommended, and it would be well if discussion in the columns of your *Journal* should lead to one infallible remedy. Of all that I have hitherto heard recommended some growers take exception and pronounce them worthless. It has sometimes occurred to me that many failures might result from the carelessness or want of skill in the operator trying the experiment. I have heard many assert that they have kept their Gooseberry bushes intact from caterpillars by simply placing in the centre of each a bunch of Gorse or Heath, whilst others who have tried the same have pronounced it inoperative.

The most certain remedy which has come under my personal experience is to dust freely the lower portions of the trees and the ground around with powdered fresh lime. This invariably prevents the first attack, and if a little care be exercised in the later stages the few which survive the operation of the lime may be easily removed. Of course in a very wet season the lime is apt to be washed away and its effect weakened by the rains, and it would be well to renew it later on.

Recently, whilst on a visit to the Lake district, I was shown a garden where there was such a wealth of Gooseberries that

every tree required support to enable it to bear its load. I observed to the owner that the bushes appeared to be singularly free from caterpillars, and he then challenged me to find a single one on the trees. He next called my attention to the quantity of weeds growing amongst the trees, and said he attributed the immunity to the weeds. The garden was an open one, in no place sheltered by larger trees, and surrounded on three sides by fields of hay grass. In another garden some 30 yards away were two or three Gooseberry bushes around which were no weeds. These had scarcely a leaf left upon them, and were badly infested with caterpillars.—BETA.

## FLOWERS OF HARDY TREES AND SHRUBS

AVAILABLE FOR DECORATIVE PURPOSES.—No. 1.

It would certainly be limiting the term "beautiful" to a very restricted class of flowering plants was it confined merely to those to which a great deal of care is required in the cultivation, yet somehow we are very liable to underrate the merits of those which owe nothing to us for the highly ornamental appearance they put on in their respective seasons, very often, in fact, arraying themselves in their inimitable garb in spite of our neglect, if not absolutely ill-treatment. Fortunately, however, these beauties are not entirely wasted, for the poet and naturalist have long admired our woodland scenery, and have depicted its attractions.

As instances of Nature's decoration we have wild flowers a considerable part of the summer, and trees are ever beautiful; some, as the Oak, that are not conspicuous in their inflorescence in spring are highly so in the fall of the leaf in autumn; while the wild Cherry is very remarkable at both periods. The beautiful crimson tint the autumn leaves put on render its appearance ever grateful to the admirer of autumn foliage, and the wonder is it is not more patronised; the spring flowering being especially rich, and the tree not by any means fastidious as to situation, while when arranged in its white apparel in April and early in May it is a striking object, and well worthy a place at the back of a shrubbery, or front of a plantation or wood. Not less ornamental is the common Hawthorn. And how many gentlemen's parks are beautified by old venerable Thorns scattered about in all directions, each one vying in symmetry with the best-managed exhibition plants? The Thorn, however, has been augmented with innumerable varieties, but the common one, nevertheless, is still amongst the most beautiful; perhaps the Double White may be equally good, and some late-flowered varieties are also showy. We omit the other members of this great family, but the Blackthorn demands a passing notice as being much earlier and consequently harder. Its blooming is often delayed by the cold weather which it has to encounter; a few days, or perhaps a whole week of that time, receiving the name of the "Blackthorn winter" in many districts from the very common occurrence of a cold wintry period at that time. But the Blackthorn falls short of the Hawthorn in beauty or practical interest, but associated as it is with the Plum and Damson, and flowering when they do also, it is deserving of notice. The Crab (thanks to cultivation) is but rarely met with now-a-days compared with what it was formerly. The object of rendering it useful has induced some one or other to graft them, very often when in anything but a promising place, and a good Apple is substituted for the Crab. Now and then, however, the original is found, and when in flower it is needless to say is very handsome.

But we must turn to something else, and as a harbinger of spring what is more welcomed than the soft silky tufts of inflorescence we are accustomed to call "Palms"? How many old-fashioned hedgerows and coppices do they give a charm to in early spring? Many of the species are exceedingly handsome, some in which the claims of beauty rest with the male specimen, others again in the female. I believe Dr. Hogg has studied this genus with great success in the way of pointing out the most showy species, and I have a faint recollection that the male variety of *Salix vitellina* and the female of *S. amygdalina* are especially handsome when in flower. At all events the presence of palms forms an epoch in early spring alike cheering and interesting to all who are any way connected with country life.

We next come to the Gorse, Whin, or Furze, an object widely different, and of late years much persecuted. The taking-in of vast tracts of land, the abolishing of commons, and agricultural and wayside improvements have done away with vast tracts of Gorse land that used to be in a certain degree public

property; but enough remains to prove its beauty to the most casual observer, and when in full bloom where is the cultivated plant that can compete with it in gorgeousness? a vast breadth of it giving a more close and compact body of golden colouring than can be given by the best-managed bed in the parterre. The charm of a mass of Gorse in bloom need not, however, be dilated on further, and that of the Broom may be added in the same category, as both in some degree partake of the same character of liking dry stoney ground. Possibly the Broom is disappearing faster than even the Gorse; for apart from the persecution it receives from the lords of the creation, game attacks it where it abounds, that it is with difficulty preserved where hares and rabbits exist, there being nothing they are more fond of. On its handsome bright yellow flowers it is needless to dilate. Usually where it is found in great quantities the *Rhododendron* will be found to succeed pretty well.

In my next I will take a glance at higher-growing objects, and note that even the most common trees possess a certain amount of beauty when examined carefully, which is not generally admitted or sufficiently appreciated.—J. ROSSON.

## THE ROYAL HORTICULTURAL SOCIETY.

THE Prince of Wales presided on the 23rd, at Marlborough House, over a meeting of Her Majesty's Commissioners for the Exhibition of 1881. There were present the Duke of Buccleuch, the Marquis of Lansdowne, Lord Spencer, Lord Carnarvon, Lord Granville, Lord Aberdare, Sir Stafford Northcote, Sir Bartle Frere, Sir William Knollys, Mr. Playfair, Sir William Anderson, Sir Francis Sandford, Mr. Edgar Bowring, Mr. John Evans, Mr. Field Gibson, General Ponsonby, General Probyn, and Major-General Scott, Secretary. Sir Henry Thring attended the meeting at the request of the President.

The Commissioners considered a proposal from the Council of the Royal Horticultural Society to the following effect:—

"1. That the Society should raise its annual income from subscriptions to £10,000, an amount that would provide adequately for the promotion of the science and the encouragement of the practice of horticulture, and for the efficient maintenance of the gardens.

"2. That the Commissioners should waive the imminent forfeiture of the lease for non-payment of rent for a sufficient period to give the Society an opportunity of re-establishing itself."

The Commissioners accepted this proposal as the basis of an arrangement.

## REDLEES, ISLEWORTH,

THE RESIDENCE OF W. F. WATSON, ESQ.

JAMES'S Calceolarias, Cinerarias, and Prolific Marrow Peas have attained a very deservedly wide reputation, and have become what may be termed household words in every garden. Redlees has by them become celebrated, and a brief notice of the garden cannot fail to possess interest, and, it may be, afford instruction. Like so many other places where the best of gardening is to be met with, this is not an extensive and showy demesne, but is the suburban villa of an affluent and liberal-minded gentleman, who by the encouragement he has given to the good keeping of his own garden has raised the standard of some of our most popular flowers, has stimulated their culture, and made them better to fulfil their purpose in the adornment of other homes.

The mansion is a commodious red brick building, to which is attached a spacious conservatory. The grounds are generally flat and park-like, containing a few fine old specimens of Cedars of Lebanon and numerous other Conifers of less venerable aspect. Wellingtonias are very numerous and healthy, a belt of these and the best sorts of Cupressuses probably a mile or more in length, forming an attractive boundary to the grounds. These have only been planted about nine years, and the progress they have made is remarkable. The soil is not only good—a medium hazel loam—but it was thoroughly and deeply trenched, and the plants were planted when in a small state. Mr. James worked on the principle that small plants well planted are more satisfactory in their progress than are large specimens which receive a check by removal from which they are often a long time recovering. The size and condition of these specimens now prove that he was right.

The lawn is of considerable size, and is not overcrowded with flower beds, these being mostly arranged by the sides of the

walks, and planted on the carpet system, some of the designs and combinations being exceedingly chaste and effective. But hardy garden flowers are also cared for, Mr. James being not only a grower but a raiser of Carnations, of which he possesses many fine varieties. The flower garden also includes a rosery, and although newly made has produced a rich display of splendid blooms, some of these on cut-backs planted in the autumn producing flowers of almost equal merit with the best-exhibited blooms of the season. The soil is all new to the depth of 2 feet, and is composed of heavy loam and manure, and hence the vigour of the plants.

The glass structures are not very extensive, but are in good order, and are well adapted for their purpose. The plant houses are light with high stages, so that the plants are as near the glass as possible. Some are of north aspect, and are useful for retarding, and have in fact kept Show and Fancy Pelargoniums in perfect freshness to the present time. These plants are grown to a state of great perfection, being perfect globes of bloom from 2 to 4 feet through, and the foliage curling over and almost hiding the pots. The plants are now out-doors ripening their wood, being turned on their sides on wet days. They will be cut down at once. It may be said here that those who intend to increase their stocks of Pelargoniums cannot purchase plants at a better time than the present, for each plant will afford cuttings to be put in forthwith. At this season of the year there is no better plan of striking Show Pelargoniums than by inserting them in sandy soil in the open air and in the full sun. These make stocky vigorous plants, and if the wood is well ripened very few cuttings fail to emit roots. The Fancies strike better in pots under glass. After being cut down the plants are left in the pots to break, and are then shaken out. This shaking-out is a complete work. Every particle of soil is washed from the roots, and these are trimmed and repotted in smaller pots, throwing in a dash of silver sand as the work proceeds. These cleansed roots forthwith emit vigorous spongioles, and the old plants are made new again. The Fancies are treated in the same manner, but they are less robust and long-lasting, and in order to gain vigour they are often grafted on the Show varieties. Grafting is done at the present time, the stock being in advance of the scions, and the grafted plants are stood on a north or shaded border until the union is completed. By that simple means vigour is imparted to tender and delicate varieties.

Calecolarias are ripening their seed, and the sowing of next year's crop is usually made about the last week in July. The seed should be sown thinly on light soil previously watered and covered with a square of glass, and the seed pans be placed in a cool, moist, shaded place out of doors. Then is germination certain, and the young seedlings come up stoutly and sturdy. By twenty years of steady perseverance Mr. James has brought this flower to a high state of perfection. His strain is notable for high colour, large blooms, and dwarf plants.

Cinerarias are equally well grown, and the improvement in this flower is also very marked. Seed is sown at the present time, and treated the same as for Calecolarias. When sown earlier the plants are liable to receive checks by a dry atmosphere. Mr. James's plan is to secure a regular progressive growth from the moment the seedlings appear to the time the plants are perfected, and his great success is the best proof that his treatment is correct.

Cyclamens are grown exceedingly fine; indeed, those who have not seen the best examples of the few great growers of this flower have no idea of its extreme beauty. The corms are now being potted. A soil composed of two-thirds of turfy loam and one-third of dry lumpy cowdung, and a free admixture of silver sand, is the staple compost. The plants are kept rather close in cold frames to start them, and they are frequently sprinkled with water to induce a free and healthy growth.

A great point in Mr. James's success as a plant-grower is the diligent war waged against insects. Pelargoniums, &c., are regularly fumigated, and Cyclamens are dipped, not so much to kill insects as to prevent their appearance on the plants. Not only is this preventive plan emphatically the most effectual, but it is also by far the most economical.

At the present time the Fuchsias are the most attractive plants at Redlees. They are veritable fountains of bloom, not large, but in rare health. They are not trained to any fancy style, but are left, as Mr. Taylor so nicely puts it, to Nature and her own sweet ways, and we are of those who believe that no other way is so good in the training of this elegant flower.

Mr. James is turning his attention to the raising of seedlings, of which he has some promising varieties. He also grows Auriculas well, and holds a rich and valuable collection. These are reported and placed in a shaded place. Ferns and Orchids are grown for decorative purposes.

The most attractive plants in the stove are the Achromenes. They are not mentioned because they are large, but to draw attention to Mauve Queen, a variety which all should possess, for it is exceedingly fine in size of bloom, substance, and colour. Before leaving the plants we may note that old Epacris cut hard in like Pelargoniums were breaking freely, but Heaths treated in the same manner will never break again.

Besides the houses for plant-growing Mr. James has ranges of low brick pits, along the front of which runs a row of hot-water pipes. These pits are staged, and are so arranged that the stages can be raised or lowered at convenience, so that the plants are always close to the glass. These are valuable aids to plant-growing. They are better than houses, and the most cheaply made and heated of all glass structures; they should be provided in every garden where good plant-growing is expected.

But being a "plant place" it may be supposed there is no fruit at Redlees. Let us step into the vineries. The Black Hamburgs are mostly cut, but Vines thirty years old have carried one of the most useful crops we have ever seen. The berries are perfect in size and finish, but the bunches are not large. How could they be when we count on one Vine with two rods fifty-two bunches averaging three-quarters of a pound each? The rafter may be about 18 feet in length, so that it is seen that the crop is a very fine one. Lady Downe's Seedling is carrying about forty bunches to each Vine, and Muscats are perhaps still finer. These are grown on the extension system, and all the roots were lifted last autumn. Considering this the crop is very heavy, to heavy surface-dressings of rich manure on the borders is to be attributed this very satisfactory example of Grape-growing.

The kitchen garden is outside the grounds. We cannot notice its contents, having only space to say how James's prolific Marrow Pea is looking at home. Mr. James can show grand rows of this sterling Pea. It grows 8 feet high, is extremely robust, and laden with pods down to the ground. The pods are fine, well filled, and in colour light green. For productiveness and quality this is one of the best Peas which has ever been raised, and the rows now growing are amongst the finest features of Redlees.

### CURL IN POTATOES.

The curl in Potatoes is said to be entirely prevented by taking up such as may be intended for seed two or three weeks sooner than would be advisable for the general crop. It was known to many of us long before the year 1845. My opinion is that the curl and the Potato disease is one and the same, only different in the form of attack.—W. GILES, *Notting Hill*.

[The curl began in 1792.—Eds.]

### THE LOWER GROUNDS, ASTON PARK, BIRMINGHAM.—No. 1.

WHILE these Grounds are celebrated as a popular place of resort for the inhabitants of the metropolis of the midlands, they possess a much wider interest as having been the site of some of the finest horticultural exhibitions of recent years. The ability which has been exercised in the formation and management of these Grounds and the enterprise of Mr. Quilter in inaugurating the great annual horticultural gatherings, are such as to demand the recognition of all who are interested in horticultural pursuits. The more is this the case that the object of these exhibitions is pre-eminently worthy, as, on the one hand, conferring benefit on a valuable institution, and on the other as stimulating and encouraging the spread of high-class gardening. Such gatherings as those with which the Lower Grounds are identified have a direct tendency to popularise horticulture, for by bringing together the best of the earth's products in a densely populated district, and this in a manner to arouse a general interest, a love of gardening is engendered, and a spirit of emulation is fostered which cannot but lead to a salutary end.

But besides the popularity of these Grounds—a popularity brought about by a combination of tact, skill, and liberal-minded policy—they are in themselves worthy of a visit both

as regards their attractive arrangement and the good examples of decorative gardening which they portray. On both these grounds, therefore—their renowned public character and their intrinsic merits—we draw attention to them in a form of which they are worthy, and as being a pleasant rendezvous to any wandering tourist interested in the beauties of nature and art. In these Grounds, however, art predominates, for their aspect is modern, but the touches are so delicate that in many places it is hidden, and the landscape effect, while being essentially artificial, is in its character pleasingly natural. This is seen in the broad expanse of turf and water, the disposition of rustic bridges, which have a use as well as imparting an ornamental feature to the Grounds, and the arrangements of a great portion of the flower gardening. But undoubtedly the attractiveness of the Lower Grounds is heightened by contrast with the Aston Hall estate adjoining. The old Grounds are im-

posing by their venerable aspect and the noble trees which surround the quaint old mansion. These call up reminiscences of a past age, while the Lower Grounds by the modern nature of their treatment—the combination of flowers, shrubs, and lakes—exemplify the present. The only thing venerable in the Grounds is the old Oak which is shown in the engraving, and which measures 9 yards in circumference at the base.

The Grounds are about forty acres in extent. When taken possession of by Mr. Quilter ten years ago they were in a semi-wild state. There was then no hotel, flower garden, green-houses, conservatory, boats, &c.; indeed, nothing to attract visitors, the leading object being to realize capital by fruit from the old trees and by cut flowers from the borders. Mr. Quilter at once commenced a series of improvements, which have been going on to the present day, to keep pace with the times and to attract the interest of visitors. Many acres of

Fig. 12.—ASTON PARK—ENTRANCE TO THE LOWER GROUNDS.

turf have been relaid, lakes have been made, shrubs have been planted, walks have been widened, and flower beds laid-out. It is not unusual on special days for ten thousand visitors to congregate in the grounds, and the numbers are every year increasing. Many of the principal inhabitants are yearly subscribers, and have access to the grounds for promenade and recreative purposes. The number of men employed in the Grounds exclusive of attendants varies from twenty to thirty, and excellent order prevails under the able management of Mr. Spinks.

The islands in the centre of the lake—imperfectly shown in the illustration—with its rustic work and central Weeping Willow tree is very ornamental, and the standard Salix which fringes this lake are remarkably appropriate and pleasing. On one side of this lake are arranged a series of flower beds and shrubs, and on the other is the subtropical garden. The flower beds are now filled with the ordinary summer bedding plants, with which are effectively associated bedding Pansies. This is a combination of spring and summer bedding which it is useful to note. The same mode is also to be seen in Battersea Park, and is much admired by visitors there.

It is well known that for some weeks after bedding-out the Pelargoniums, &c., the beds are anything but gay—they are simply collections of plants struggling to establish themselves, but by planting in these beds lines or circles of the

bedding Pansies, the beds are made attractive in the early summer. The rich blue Pansies are very effective with silver-edged Pelargoniums; and the yellow varieties, in mixture with such plants as Lobelias and Scarlet Geraniums, add a feature of brightness to a garden when it would otherwise be almost destitute of colour. Such Pansies as The Tory, Alpha, Perfection, Golden Sovereign, &c., are valuable acquisitions to a garden in early summer, and being hardy and of easy culture they can be raised without much trouble. These Violas bloom beautifully until the bedding plants proper become established, and contribute an aspect of cheerfulness at a time when flowers are especially welcome. When no longer required the Violas can be cut away. At no time do they interfere with the well-being of the autumn-flowering plants. Violas thus used may play an important part in early summer garden decoration. By their aid in these Grounds the beds were made as beautiful in June as they will be effective in August, which is a point of no small importance to those who would enjoy their garden not at one particular season, but who as far as is possible covet flowers at all periods of the year.

Spring and summer gardening is blended in another form. Broad lines and circles of the hardy Saxifraga cordifolia had been exceedingly effective in the spring, and now the broad foliage of the same Saxifraga affords a pleasing relief to the brightness of the Calceolarias with which it is associated.

Thus do spring and summer join hand-in-hand, and bridge over the too-flowerless month of June. This simple and effective mode of flower gardening is suitable to many places, and it is not unlikely that it will spread when combinations of other flowers besides those mentioned will suggest themselves as applicable to the object of making a garden attractive over a larger period than is the case at present.—W.

## CHAPTERS ON INSECTS FOR GARDENERS.

No. 2.

THERE WAS a man of some note in the scientific world who went to pay a summer visit to a country person, an old school-fellow of his. He was much inclined to do the agreeable, so when his friend asked him if he would give a little sort of lecture or talk on natural history in his schoolroom there, the man of science agreed thereto. "But," said he to the cleric, "I'm afraid I may use by chance some words that your folks won't quite understand. I'll watch your face, and if there is anything that strikes you as being unintelligible, just touch your nose." This was agreed, and the audience assembled; after awhile the circumstances of insect life came under consideration, and the lecturer began a sentence with the words "In the metamorphosis of insects," when he saw his friend's finger lifted to the organ of smell. Quickly he changed his phrase, "In the transformations of insects," when the menacing finger went up again; and a third time he went on, "Or in what are called the changes of state in insects;" but again he was stopped, and, growing desperate, he said, "Or when they turn one thing into another," a statement unscientific certainly, yet so far intelligible that it raised a laugh, under cover of which the speaker proceeded to quote some simple and easily recognisable facts. I refer to this story to show how far from easy it is to most of us who speak or write on entomology, so far to popularise the terms of science as to make the unscientific individual perceive that we are desirous of being, not the obscurers, but the interpreters of nature. You may scrupulously avoid every word or phrase that seems technical or difficult, and yet, in your supposed simplicity, be far from making your meaning clear to the person or persons you address.

Now the changes insects undergo are puzzling to some extent even to those who make insects their study; and though one may glide smoothly over a phrase which comprehends them all, and say that there is first the egg, secondly the larva, thirdly the pupa, and fourthly the imago or perfect insect, it is not easy in many instances to separate one from the other, except, indeed, the egg, which cannot well be mistaken

for a later development of insect life. Unless in a rare case of accidental resemblance or mimicry, when we find an egg we are not likely to suppose it either a larva or a pupa; but when we come to define the two latter, and state what each is, and what it does, we cannot make an absolute rule. In the larval or second stage of their life we are wont to say that insects feed and move about; while the pupa is quiescent, living without food, unless, perhaps, atmospheric air in some instances afford a sort of sustenance. But there are pupae brisk enough in all reason, as amongst the aquatic insects of numerous species. Only a short time ago I brought home a dragon-fly pupa, displaying, visibly enough, his rudimentary wings, and he busied himself in taking sundry excursions up and down the plants in my aqua-vivarium, until one morning he popped his head above the surface and flew off, leaving

behind his filmy investiture. As he had conducted himself peaceably I brought home a larger pupa of that family, but he was no sooner "at home" than he began to devour his neighbours promiscuously. I bore with him while he drew "caddis" larvae out of their cases or portable dwellings, but when he savagely fell upon a young larva of a water beetle that I wished to rear I was obliged to serve an ejection. Then in some groups it is by a very imperfect move that larva advances to the dignity of pupa, and the pupa, again, develops into the mature insect. Nay, it might be said that some imagos are always pupae, were it not rather Irish. Instinct urges nearly all insects to the concealment of the egg, or perhaps we might state the fact better by remarking that from their minute size and usual location the eggs of most insects escape observation and need to be searched for. Pupae also are frequently hidden, so that it is in the

Fig. 12.—VINE PYRALIS IN ITS THREE STATES.

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|---|---|
| 1. Leaf with patches of eggs laid upon it.                  | 5. Small caterpillars hanging by threads. |
| 2. Patches of recently-laid eggs.                           | 6. Leaf with the chrysalis.               |
| 3. Eggs in which caterpillars can be perceived. (enlarged.) | 7. Caterpillar.                           |
| 4. Patch of eggs from which the caterpillars have already   | 8. Moth.                                  |

second and final stages that insects are best known to most people, even to the gardener and the entomologist. Yet could the gardener but be convinced how much advantage he might gain in the case of many species by searching them out and destroying them in the egg, the time bestowed on the work would be well rewarded. This would have the additional recommendation in the eyes of some sensitive persons, that it cannot be in the least degree cruel. Eggs certainly don't feel. Without going into minute details, which would be out of place, possibly tedious, in this series, which is designed to help the readers to take a general reconnaissance of the various orders, a few prefatory remarks on the transformations of insects taken as a whole will put us in a better position for our survey.

The old naturalists—not such fools many of them as modern "new-lighters" would have us believe—held to the axiom that every living thing comes from an egg, and therein they were anticipating what has since been as good as proved, only its

universality is hardly absolute. We come quite near enough to the truth when we say that most animals begin with this as the germ of their life, and it is palpable to the senses amongst the overwhelming majority of the insect tribes, and stands not on a mere theoretical basis. Of course there are such exceptions as we have in the aphid family, where through a good part of the year the happy mothers produce living young as spry and active as their parents, worse luck to the gardener; and then, again, certain species of flies in the Dipterous order of great destructive powers give birth to larvae, while there is also an instance of what is still more singular, the deposition of one or two pupæ by the parent insect in another genus of flies. It may perhaps appear to some readers to be a needless statement, yet I have met with educated persons who supposed that insects laid eggs, fed a little, laid eggs again, and so on—in fact producing broods much like birds; therefore I remark here that (with the exception of a few, such as the queen bee) when a female insect has deposited her eggs she dies. And this, her life work, after it has once been commenced, is gone on with continuously, until all the eggs are got rid of, whether they are laid *en masse*, in small quantities, or singly. Of course it doesn't seem a very affectionate way of phrasing it, but really it is a case of "getting rid" of the eggs with most insects. Only here and there have we a species that either takes any heed of her progeny after they are hatched, or lays up any provisions for them on their first entry into this world of troubles. Nature prompts the mother to select what is the proper food for her offspring, and, having placed the eggs on or near that, be it animal or vegetable, the mother retires from business, and sinks into the grave to which the partner of her life has already gone—or, to put it in more matter-of-fact, dies off, to be devoured by some creature or another, since most insects, living or dead, are thus utilised. If there is anything in insect economy that strikes us as significant of a resemblance to maternal regard, it is such a circumstance as we notice amongst the Coccid or scale insects, where the gradually elongating and wasting female, as she clings to the branch, affords a shield-like protection to the young larvae she has produced, and probably also supplies them with the first food they swallow in some instances.

A remarkable proof that the insect tribes, by a primary law of life, are exposed to unusual dangers is furnished by the fecundity of the females in the bulk of the species. Hence in spite of the dangers arising to them from other animals that make them their prey, and the effects of unfavourable weather, with in addition sometimes internal and little-known diseases, hosts of species perpetuate themselves from century to century, where the soil and temperature suit their habits. Of late years in this country to some scarce or local insects the entomologist has been the worst enemy. The schoolboy's notion that a caterpillar was so named because it was a sort of creature that liked to cater for itself on our choicest vegetables, and that a grub got its name because it was always feeding, is not exactly true. The essential part of the caterpillar's name is the second half, describing as it does something that "pills," peels, or devours what it comes in contact with. The underground life of some grubs, no doubt, led to the application of the word to larvae either footless or scantily furnished with feet, and that keep themselves out of view as much as they can. Yet both words are used in a very loose way, though entomologists have now pretty well agreed to restrict the word "caterpillar" to the larvae of the Lepidoptera, and to the pseudo-caterpillars of some Sawflies which have much resemblance to the caterpillars producing butterflies and moths. It is true also that some of our forefathers applied the term "worm" to sundry slim larvae. A palmer worm, for instance, was a hairy caterpillar, because it resembled the roughly-clad palmers that had returned to England from wandering on Asian shores. Unfortunately, too, the word "grub" has been used by some writers when they were speaking of insects in their third stage—the pupal condition. On the whole we cannot fall back upon a better word, as generally denoting the second stage of insect development, than Swammerdam's "*larva*," mistaken in a sense, as he was in choosing it impressed with the belief that under the skin of the larva the "masked creature," even at its escape from the egg-shell, were all the organs in miniature of the perfect insect. This we now consider to be a mistake; there are throughout points of resemblance, but the larva and imago exhibit different structures and functions, necessarily connected with differing modes of life. Still we do not quarrel with the term "*larva*," as handily expressing the second stage

of either a moth, a fly, a beetle, or a bee. Widely diverse these from each other, as we shall see hereafter, yet all having something in common. More unlike, it may be, too, than are the matured or fully-developed insects; thus the six-legged aquatic larvae, well-known to the angler as caddis worms, produce imagos which are not without resemblance to Lepidoptera, and have been called water moths, though the larva is so different from the average caterpillar of true moths. Certain flies and bees are much alike, yet the larva in the one is footless and in the other provided with six feet. And yet amongst other bees where the larvae are dependant for food on the attentions of their nurses or foster parents, they are footless, evidently still more incapable of shifting for themselves than the larvae of many flies. To the superficial observer it is quite obvious that the caterpillar of a butterfly, the larva of a beetle or of a bee, is in appearance, as well as in habit, quite different from the insect as it presents itself to us in the final stage of life. But then, again, the larva of a cricket, or that of an aphid, is an approximation to the imago in form, though destitute of wings. Also we have various instances, as amongst the flies and the dragon flies, where the two or four-winged insect is developed from an aquatic larva; certainly, however, it is as unamiable in habit as the predacious imago.

The amount of food "put away" by insects in the last stage is sometimes considerable, yet the larval condition must be deemed the grand feeding-time in the insect world generally; just as the pupal state indicates assimilation and preparation for change. Though, as hinted already, there are some active pupæ, yet as no pupæ are found either to grow or to moult, the nutriment they consume must be small in quantity. And here, again, we have strange contrasts and odd resemblances; beetles and bees, so remote in many respects, are akin in having pupæ which display very distinctly in the majority of species the outline form of the perfect insects, while butterflies and flies (with exceptions) approach each other in being developed from pupæ which give no clue to the nature of the insect enclosed, or only a slight indication. The agile pupæ of such insects as dragon flies and grasshoppers hint to us what they are about to become by displaying rudimentary wings. As to the length of life in these earlier stages, it is as a rule more prolonged than in the imago condition. We have larvae, it is granted, that attain their seniority in a few days, but those of some beetles and moths live years; and the pupal state may be reckoned by days, months, or years.—O.

#### OUR BORDER FLOWERS—COUSINIA HYSTRIX.

THIS is a race of plants very little known and seldom met with in cultivation. They may not be so graceful in their appearance or so attractive in their habit as some other of our border flowers, and it may be their Thistle-like appearance causes them to look a little vulgar among their more refined neighbours. But what if some of them has a rather Cardoon-like appearance? We sometimes find relief in change, and need not despise them for that. When taken well in hand they can be made very effective; and though we have a goodly number of white-leaved plants this adds one more to the number, and is not to be despised where large plants are required to fill large spaces for centres of large beds or for other purposes. Being hardy makes it still more desirable. When in the border fully developed, and seen at a distance with its silvery-white leaves and purple flowers, it is a very striking object, and a group in the shrubbery has a fine effect.

Though there are several kinds enumerated, I believe that *Cousinia hystrix* is the only hardy herbaceous one we possess. This is quite hardy, and when well established will last many years. It may be increased by seed sown in the spring, or by division after blooming. Care should be used in the operation, for they have fleshy roots which sometimes bleed and the plants go off. When the plants have attained a large size the stems ought to be thinned out that they may fully develop themselves. They require a well-drained situation, and will thrive in partial shade.

The ground for them should be broken up to the depth of 2 feet or more, and have some good loam, leaf mould, or good rotten manure, with a little coarse sand well worked into the place intended for them. They must be attended to with water when required, and when the flower stems rise they should be carefully staked to prevent them from being broken by the wind. Liquid manure is of service to them occasionally. When



liberally treated they will grow from 2 to 3 feet high. *C. macrocephala*, a biennial, may be raised from seed during the summer, and be kept from frost through the winter and planted out in the following spring. It is desirable on account of its yellow flowers. *C. cynaroides* is a biennial with white flowers. There are others that are equally interesting, and ought to be in more general cultivation.—*VERTIAS*.

### VENTILATION AND INSECTS.

DURING the last few years glass houses have sprung up as if by magic, so that no villa of any pretensions is considered complete without its conservatory, vinery, or orchard house. These appear to be necessary appendages to the residences of merchants and others who during the greater part of the day are engaged in business, many of whom are not in a position to keep a regular gardener. I will, for example, take the man of business who leaves his home, say, at eight or nine o'clock in the morning, and, perhaps, does not return before four o'clock in the afternoon. How do his pet plants or his fruit trees fare during his absence, with, perhaps, no one to attend to them who has any knowledge of such matters? Many difficulties and disappointments arise as to the proper airing of glass structures during the master's absence. Under such circumstances many impediments arise, not the least of which are the ever-troublesome insects. This must be patent to the practised man who reads year after year of so many antidotes recommended for their destruction. These remedies crop-up every year like so many patent medicines. Why should all these new remedies be required? If our forefathers could cope with insect pests successfully, why cannot we do so with the remedies still in our own hands? But it is not the practical gardener who is at fault and cannot cope with insect pests; it is, as a rule, the amateur who creates a demand for these remedies mainly by the cause of imperfect ventilation. I do not for a moment pretend to say that gardeners can at all times prevent these obnoxious visitors, as much will depend on the outer elements, but by proper airing and keeping a sweet atmosphere much that is obnoxious may be prevented, and much after-labour and vexation avoided.

Sudden changes of temperature are alike injurious to plants and fruits, and if judicious ventilation could be more generally adopted we should hear of less failures, for where ventilation is at fault disappointment will certainly follow. In many instances air is not admitted early enough in a morning. Suppose a tightly-glazed house is closely shut-up all night and the sun allowed to shine on it for two or three hours in a bright morning, this will raise the temperature at this season of the year to such an extent that a large volume of air must be admitted to lower it. Nothing tends more to propagate disease or insect pests than these extreme measures. Under such treatment both fruit trees and plants will become unhealthy, and will soon become a prey to red spider, mildew, or green fly.

During the summer months air ought to be admitted almost as soon as the sun shines on the glass. This, of course, applies to such structures where little or no shading is required. It is bad policy to let houses become too hot while the air within is stagnant; the top or hottest part is the proper place to ventilate first, even if it is but an inch, but this, of course, will depend on the outside temperature. Very tightly-glazed houses should during the summer months have a little air left on all night. It matters not how well a plant may be potted, and how correct the soil, and careful the watering may be, if the airing is at fault there can be no prosperity. There is more importance attached to ventilation than many people imagine, but in all cases avoid as much as possible cold cutting currents of wind, especially from a north or easterly direction; but this is difficult to guard against at all times, for with a fierce sun and a cloudless sky every inch of the ventilators must be opened, but in such cases plenty of moisture should be used to counteract the drying effects of such winds.

It is a bad plan to let the temperature fall too low before closing the lights; closing ought to be done gradually a little at a time. In shutting-up it is a good plan to husband as much sun heat as possible. A rise of 10° or 15° after shutting-up will do no harm when the sun is on the decline and the house is full of pure fresh air, but letting it rise to that extent in the morning without air in a stagnant atmosphere is decidedly injurious. It is often a difficult task to instil all this into the minds of young men who have such duties to perform.

As I have before remarked that insects cannot at all times be prevented, I will give an instance this season of green fly and red spider owing to the bright sunny weather and cold easterly wind gaining admittance to some houses. The red spider gained a footing at two or three ventilators in a house of Grapes. In this case there was no means of preventing the cold winds acting directly on the foliage. This attack is confined to the foliage near the ventilators, and is evidence of what cold easterly winds will do. The next case was green fly on Peaches. One point of attack was near to a front ventilator, the other near the door. I believe some people are very loth to admit that they entertain such society as red spider, thrips, and mildew, but such pests will make their appearance under the most skilful cultivators.

In many places it is almost an impossibility to keep free from these insects where mixed collections of plants are grown. In vineries and other fruit houses thrips will assert a right to a place, but the practical man knows how to battle with those enemies. For red spider a sweet moist atmosphere and a free application of the syringe; for mildew, flowers of sulphur dusted over the affected parts, and a well-ventilated and sweet atmosphere. For thrips, I know of no better or safer remedy than fumigation cautiously performed on two or three successive nights, this to be repeated in about ten days after the first application to destroy the after-progeny; but in small cases where perhaps only one or two plants are affected, careful sponging with a little soapy water, not over-strong, will be effectual.

I think that many of the horticultural buildings of the present day are not sufficiently ventilated, especially small houses with high-pitched roofs, which soon become hot and as soon cold again. This class of houses are difficult to manage, and are often to be seen adjoining the residence of the amateur. I believe that more evil is wrought by injudicious ventilation than by any other mistakes which are made in gardening matters. I advise all amateurs to have as a safety valve the top ventilators left slightly open all night, the air to be increased as soon as the temperature begins to rise in the morning, we should then hear of less destruction by insect ravages.—*G. R. ALLIS*.

### DEATH OF MR. STANDISH.

It is with great regret that we have to announce the death of Mr. John Standish, of the Royal Nursery, Ascot, Berks, which happened on Saturday last at half-past one o'clock, in the sixty-second year of his age. The disease with which he was afflicted was diabetes; with this he contended successfully for many years, but at last his constitution gave way.

Mr. Standish was born in Yorkshire, on the estate of the celebrated sportsman Colonel Thornton, on the 25th of March, 1814, and at the age of twelve removed with his parents to Calne in Wiltshire, where his father held an appointment at Bowood under the Marquis of Lansdowne. Having entered the gardens there, here it was that he gained his first instruction in gardening. After his apprenticeship was finished he went to Bagshot Park, where Mr. Toward was then gardener to the Duchess of Gloucester, and under him acted as foreman till he commenced business for himself as a nurseryman at Bagshot. The branch of gardening in which Mr. Standish greatly distinguished himself was hybridising. With this he began, and to this his life was devoted for a period of forty years. One of his first achievements in this way, and which brought him prominently into notice, was crossing *Fuchsia fulgens* and *F. globosa*, from which was raised *Fuchsia Standishi* in 1839. More than usual interest attached to this, for "it has been supposed impossible that *F. fulgens* should be a *Fuchsia* at all, especially in having an herbaceous stem and tuberous roots;" but says Dr. Lindley, "It now however appears, from the fact of its crossing freely with the common *Fuchsias*, that it really does belong to the genus."

Many other genera of plants formed the subjects of Mr. Standish's experiments, and notably the *Rhododendron*, of which he raised many beautiful varieties. It was to Mr. Standish when he was at Bagshot that Mr. Fortune entrusted the raising, propagation, and distribution of his Japanese and Chinese plants on his second expedition to the East, and it was through him that some of the most familiar trees and plants of our gardens were first distributed.

In 1862 Mr. Standish removed from Bagshot to Ascot, where he formed an entirely new nursery on a more extensive scale.

Mr. Standish leaves behind him many sorrowing friends. He was a man greatly esteemed by those who knew his genial disposition, kindness of heart, and disinterested generosity, and among these his memory will be cherished for many years to come.

**DISA GRANDIFLORA.**—A slight mistake occurred in the report of the late Show. It was stated that a *Disa* was exhibited in Lord Londesborough's collection of Orchids "similar to one exhibited in the Council-room by Mr. Bull." It should have been "similar in name," for both were named *D. Barrellii*. Mr. Bull's—or rather Lady Dorothy Nevill's plant, and grown by Mr. Vair—is the true variety. It is exceedingly brilliant, the flowers, six in number, being of a dazzling flame scarlet, and the plant itself was an excellent example of culture. It was stated to have continued in bloom since Whitenside. This fine *Disa* was greatly admired both in the Council-room and exhibition-tent.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

THE HERBACEOUS *Calceolaria* has been a very fashionable flower for many years, and is prized both for window and greenhouse decoration. These plants are truly glorious when well grown, but they do not succeed well when cramped-up in small pots, for then the foliage never becomes developed, and in most cases it assumes an unhealthy appearance; therefore my advice is to grow a few of them and grow them well.

Now is the time to sow the seed. This should be done in a small pot or pan of light sandy soil. It must be sown as regularly as possible over the surface, and be very thinly covered with fine soil or silver sand; afterwards give it a very gentle watering, and place in a handlight in some shady corner on a bed of ashes, but free from the attacks of snails, which are exceedingly partial to the young seedlings. Never allow the surface of the soil to become dry after the seed is sown, or germination is seriously retarded. As soon as the young plants will bear handling, prick them out singly about an inch apart in pots or boxes, and place them again in a shady place and water carefully. Towards the autumn they will grow very freely, and must be potted into single pots, and when winter comes on they may be stored closely together in the greenhouse. About the beginning of January they will be making a fresh start, and must then be encouraged in every possible way by potting and other necessary attention. They like a good airy place, and not in the warmest part of the greenhouse, as they will endure more cold than many other plants; but this cold must not be frost. I have frequently wintered them in cold pits or frames, and they have always kept growing and have done well.

The soil may be a mixture of one-half loam and the remainder equal parts of very rotten manure and leaf mould, adding plenty of sand and broken charcoal to keep the soil open. Perhaps by February or the beginning of March they will have advanced so well as to need shifting into their blooming pots, which, to have good plants, should not be less than 8 or 10 inches in diameter. The fine leaves they make will be down close on the surface of the pot, and will need considerable watching against the attacks of green fly. This enemy is difficult to eradicate when it has taken hold of this plant, because if they are fumigated it is difficult to make the smoke penetrate between the closely-set leaves.

It will be found that after they have filled their flowering pots with roots that they will make surface roots just under the foliage. Now as this will happen about the time the plants are throwing-up their flower stems, it stands to reason that if these surface roots are encouraged the plants will be the better for it; therefore, top-dress them with some soil of the nature named above, and always keep them in a moist state, giving weak manure water about four times from that time till they show flower; and then if they are fumigated at two or three different times just before they flower they will go through the flowering in a clean state, and the flowers will be large and well developed, which will well repay the cultivator for his trouble.

—T. RECORD.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### HARDY FRUIT GARDEN.

It will be needless to say anything about watering wall trees at the roots this season, as reports from all directions tell of a superabundant rainfall; nor is it necessary to say that all fruit ripe or ripening is of very poor quality. All sorts of fruit require plenty of sunshine to bring out the flavour. Should fine weather set in now all out-of-doors fruit will be abundant and good, wall fruit especially so. Watering thoroughly at the roots and also overhead to destroy insect pests just after the stoning

period has invariably been necessary in this neighbourhood. This year Nature's watering has been much more effectual; indeed no more watering will be required this year. It has been necessary to look over the trees, especially those that have not yet filled their allotted space on the walls, to remove secondary growths, and to nail-in those young growths that have extended themselves since the first nailing. Nothing looks much worse about an otherwise well-kept kitchen garden than to see wall trees allowed to run wild during the summer months. As has been so often stated in previous numbers, no growths ought to be allowed to remain except such as may be required to furnish the tree or to bear fruit next year.

One fault in the culture of Peach and Nectarine trees on walls ought not to be passed over—that is, allowing the trees to become bare about the centre. It will not be possible, especially if the walls are high and the trees wide apart, to furnish the trees quite as well at the centre as at the extremities of the branches; but by careful training of the central growths, and by pinching or cutting back strong growths that are running away with the strength of the trees, central growths will be produced, and this will result in a more regular disposition of the fruit.

Where *Figs* are grown on open walls they will require rather different treatment from that recommended for other trees. Instead of cutting the wood away it is much better to allow nearly all the young wood to grow loosely. Mr. D. T. Fish, who manages *Fig* trees most successfully on open walls at Hardwick House, Bury St. Edmunds, has treated them after that manner; and in a small garden at Ilford there are one or two trees that annually produce and ripen large crops of fruit. The young growths hang out from the walls to the extent of 3 or 4 feet. *Figs*, like the Peach and Nectarine, bear only on the young wood; and if the trees are regularly pruned and nailed-in, the trees have the same fault of becoming bare of young growths near the centre; but on the "rough-and-ready" system recommended above it is not so.

Many persons may be desirous of propagating certain choice sorts of stone fruits. This is best done by budding them, and now is a good time to do it. The stocks should be two or three years old, and the buds usually do best if inserted on a clean part of the stem near the surface of the ground. As a general rule, it is much better to purchase trees in the nursery than it is to propagate them.

Just a word in answer to "A STURRY GARDENER" in last week's number about Celery. Why does he put "splendid quality" in inverted commas? I wrote "splendid Celery." I did not mean to convey the impression that there was any superiority in flavour of large over small Celery. Growers for exhibition, and for any other purpose where large heads are required, had better grow on the single-row system. "A STURRY GARDENER" and I both seem to be agreed in this; and as to quality, I am not aware that small heads are better than large heads.

##### VINES.

We have done but little in either early or late houses since our last notice in the "Doings," but owing to the dull damp weather a few berries have decayed where some fruit is yet hanging in one of the early houses. These berries were at once removed to prevent the decay from spreading. Do not let red spider spread on the Vines from which the fruit has been out. Take all care to preserve the leaves, and water the inside borders if they are supposed to be dry. As soon as the Grapes begin to colour in the late houses, if necessary give the inside border a thorough watering with manure water, or sprinkle the surface of the border with guano or pigeons' dung before applying clear water.

Those who have to supply very early Grapes, say in April and May, very wisely grow *pot Vines*. For this crop the best varieties are Black Hamburgh, and a few canes of Buckland Sweet-water if white Grapes are wanted. The canes should be ripened-off as speedily as possible if they are not already ripened, and to do this the house in which they are growing should be more freely supplied with air, and the canes to be fully exposed to the sun. Still water freely at the roots, and do not remove the plants out of doors or cease to maintain a high temperature until the leaves change to their autumnal tint. We never give any manure water the first year, and we always prefer Vines struck from eyes inserted in January or early in February to those that have been grown from eyes of the previous season. If the eyes cannot be started early, then it will be necessary to grow from small out-back canes. We have also found that the most productive wood is produced if the pots, after the Vines have been finally potted, are placed on a trellised stage or a slate platform immediately over the hot-water pipes. The best compost is medium clayey loam four parts, rotted manure one part, and an 8-inch poiful of crushed bones to be added to each barrowload of potting material.

##### CUCUMBER AND MELON HOUSES.

We are preparing plants for the winter Cucumbers to supply fruit from October until January. Those plants intended to supply Cucumbers from that time onwards ought not to bear

previously; of course this is not absolutely necessary, nor is it necessary at all if the plants are not heavily cropped. We have had the same plants bear continuously very nearly, if not quite, all the year round; but recently, whether owing to a change of loam or treatment, the plants do not grow freely. After bearing only a few weeks they have stopped growing, and after a few weeks' rest started again. We are changing the loam, and hope to have better results.

Melons have been poor in flavour this year. Even Scarlet Gem, which is usually good under adverse circumstances, has been of indifferent quality. Those who have only the usual old-fashioned box lights are almost helpless to improve the quality of their fruit in dull weather. In heated houses it is different, for by applying artificial heat and ventilating freely, with a moderately dry atmosphere, the flavour may be much improved in dull cold weather. By planting out at once in a heated house Melons may be obtained in October, after that month the quality of the fruit is bad. For late fruit the soil ought not to be rich; no manure at all should be added to the turfy loam, and only a very little rotted manure if the loam is of poor quality.

#### ORCHARD HOUSE.

Early Rivers Peach is the first to ripen, as we do not now grow Early Beatrix, which used to be a few days earlier; but the less said about flavour the better. It requires plenty of sun and a dry atmosphere to ripen off the fruit of this sort, and which cannot be perfected in an orchard house where Early York will not be ripe for three or four weeks. If a house could be devoted to the Early Peaches raised by Mr. Rivers, where they could have that treatment which they specially require when ripening, a very different opinion would be formed of them than has been formed by those growing the trees with other varieties not ripening at the same time. It is still necessary to syringe freely, and to keep up a high and rather moist temperature in the house.

#### GREENHOUSE AND CONSERVATORY.

We have been busy finishing the potting of hardwooded plants; *Heads* and *Eupacris* were amongst them. These require very similar treatment; the potting material is turfy peat, to which is added a liberal supply of white or silver sand. In some cases the plants and pots have become too large for us. When this was the case an inch or more of the ball of roots was sliced off all round with a chopper, and the plant placed in the same sized pot; after being established in the pot the plant will be reduced in size. *Camellias* have also been repotted, the compost being two parts turfy peat to one of loam. In potting *Camellias* the roots must not be injured, and any plants that have not made roots freely may have the old mould picked out with a pointed stick, and then be repotted in the same sized pot.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

SHREWSBURY.—July 29th and 30th. Mr. H. W. Adnitt, Hon.-Sec.  
SOUTHAMPTON.—July 31st and August 2nd. Mr. C. S. Fulidge, 83, York Street, Lower Avenue, Sec.  
SUSSEX (Ottagers).—August 3rd. Mr. W. M. Hughes, Sec.  
WATTON-SUPER-MARE.—August 4th. Mr. W. B. Frampton, Sec.  
LIMINGTON AND SHIPLEY.—August 4th and 5th. Mr. R. Blount, Sec.  
NEWPORT (MORRHOUTHSIDE).—August 5th.  
OTLEY.—August 7th. Mr. Jno. Lee, Hon.-Sec.  
ROSEDALE.—NEWCHURCH.—August 7th. Mr. M. J. Lonsdale, Newchurch, Lettlesover (near Derby).—August 7th. Mr. B. Toft, Hon.-Sec. [Sec. CANTERBURY.—August 13th.  
NATIONAL CARNATION AND PROTEA SOCIETY.—August 13th and 14th, in Manchester Botanic Gardens. Rev. F. D. Horner, Kirby Malsard, Hon.-Sec.  
BURNOPFIELD.—August 14th. Mr. J. Hood, Sec.  
IDLE.—August 14th. Mr. H. N. Illingworth, Sec.  
GOVERNAT (at Coombe Abbey).—August 17th. Mr. T. Wigston, 3, Portland Terrace, Sec.  
DOVER.—August 18th.  
NORTHLEACH.—August 18th. Mr. J. Walker, Hon.-Sec.  
EASTBOURNE.—in the Devonshire Park.—August 19th. H. A. E. Bumble, Esq., 26, Hyde Gardens, Sec.  
GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.  
PORTPOOL.—August 19th. Mr. Ernest Deacon, Hon.-Sec.  
HARTLEPOOL.—August 24th. Mr. Counsellor H. Magoris, Hon.-Sec.  
NEWBURY.—August 24th. Mr. H. Seymour, Hon.-Sec.  
ISLE OF THANET (St. Peter's).—August 25th.  
RAMSGATE.—August 25th. G. D. Smith, Esq., 8, Marine Terrace, Margate, Hon.-Sec.  
DUNDEE.—August 26th, 27th, and 28th. Mr. B. MacKellar, 51, Reform Street, Sec.

#### TO CORRESPONDENTS.

\* All correspondences should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (W. W. L.).—We have not seen the book you mention. Any bookseller in Worcester could obtain the information. (*O. M. W.*).—"Dixon's Treatise on Hybridisation and Culture of *Tricolor Geraniums*" can be had from our office, free by post, 6d.

GRAPES (J. N. C.).—Write to Messrs. Webber, fruitists, Central Avenue, Covent Garden.

CHRYSOMELID (R. H. D.).—It is a toad. The flowers only are used. Put a handful of them into a teapot that will hold a pint, and fill it up with boiling water. A wineglassful morning and night promotes digestion. If your plants never flower it is either because the soil is too rich or you have not the right species of Anthemism. We know of no book devoted to the culture of medicinal plants. That on garden plants is not published. Enclose five postage stamps and order our "Flower Glass Manual."

PEACH CULTURE (Novice).—Brabant's "Modern Peach Pruner" will suit you. You can have it free by post from our office if you enclose forty-four postage stamps with your address.

WINDOW GARDENING (B. J. F.).—"Window Gardening for the Many" contains all the information you require. If you enclose ten postage stamps with your address you can have it free by post.

ROYAL HORTICULTURAL SOCIETY'S SHOW.—Our reporter and the official advertisement given to us state that Mr. Brice was first in "air florists' varieties sent out in 1878, or not in commerce." Mr. Forsters writes to us that this is a mistake; Mr. Burley (not Bully, as stated in the official prize list) was first in this class with varieties raised by him.

SHOW PALANGONTES AFTER FLOWERING (*Pelargonium*).—Stand them outdoors in a slightly shaded situation and on a hard bottom, and in about three weeks out down each shoot at two or at most three eyes of the base of the last season's growth; and when they have broken and have shoots barely an inch long, turn out of the pots and remove all the old soil, trimming in the roots, and repot in a size less pot than those they were flowered in, and place them in a cold pit or frame, keeping rather close until fresh roots are formed, then admit air abundantly, protecting from heavy rains. At the close of September or early in October remove them to shelves or stages in a light airy position. In November they may be stopped, and in December have them in their blooming pots. Three parts turfy loam, one part old cow dung, one part leaf soil, and half a part of silver sand, forms a good compost. Zonals which have done flowering may be treated in the same way.

CATERPILLAR ON ROSE BUSHES (G. L.).—The green caterpillar foraging upon the leaves may be destroyed by sprinkling with white hellebore powder, 1 oz. to a gallon of water, well mixed, and sprinkled in the evening or early morning through a rose watering-pot. If any are folded in the leaves they must be squeezed.

POTATO SHED SAVING (Constant Reader).—So soon as the skins are set—as they for the kind you name will be by this time—take up, choosing dry weather, and place them on shelves in a dry shed cool and thoroughly ventilated, and but one layer deep, and if the shelves are of lattice-work all the better, as the seed will have air both above and beneath. On the approach of frost they should be moved to a situation free from it, and the cooler they are kept up to February, but safe from frost, the better. The first sprouts should be carefully preserved; the advising of keeping them cool is to prevent undue excitement. We are glad you will soon be able to fruit your seedling Peach trees.

MADENWILDE COURT GRAPE CRACKING (*An Old Reader*).—The probable cause of the berries cracking is too dry an atmosphere in the early stages of the growth, and an insufficiency of water at the roots during the first swelling period, and at the second swelling or ripening period the atmosphere is too moist, and the supply of sap, from too great moisture at the roots, excessive. It may arise from the low temperature you have kept, which would, from lessening the necessity for air-giving, tend to a closer and moister atmosphere. Keep drier and a good heat, admitting air very freely. The Vine is probably constitutionally weak, and unless it is at the second growth be strong, having been close cut-in, we should replace it by a fresh cane.

TOMATOES INFESTED BY INSECTS AND MILDEW (R. G. M.).—The white fly is difficult of extermination, for upon the application of tobacco smoke it, when the smoke is not dense, drops to the floor or soil, and is so far out of harm's way. Fumigation with tobacco we advise, having first flooded the floors with water; and after the fumigation, when the house is so free of smoke as to be endurable, syringe the house, and especially the plants infested, thoroughly with a dilution of tobacco, one gallon to six of water, and this will take the insects before they rise, and will destroy them. For the mildew, dust the infested parts with flowers of sulphur and admit air more freely.

CANNA CULTURE (Gwen).—The plants in pots you may either plant out or keep in pots in a greenhouse well supplied with water, shifting them into larger pots as they require it. If planted out they should have a sheltered situation, and a light soil enriched with leaf soil or well-rotted manure, and be well supplied with water in dry weather. After the first frost in October the roots should be taken up and be laid in a shed for a few days to dry, and then be stored away in sand in a cellar or other place safe from frost.

VINES AND PLANTS BROWNED (*A Thirteen-years Subscriber*).—The leaves you have sent us are scorched, probably from keeping the house too close and the foliage wet, which causes the leaves to be browned by the rapid evaporation of the water from their surfaces. Admit air more freely, and especially in the early part of the day, with a little at night. There is no trace of insects, and if the Vines have leaves in the same plight as those sent us of plants and Ferns, and the Grapes are just ripening, they will not do so perfectly, and the flavour will be poor. Shade the Ferns.

MELONS NOT SETTING (*A Subscriber*).—The female flowers you sent us are very weak, but are nevertheless perfect, and would set were the frame lined so as to give increased warmth, and admit of air being given not only in fine weather but in dull, and especially at night, for which there is great necessity when Melons are setting to prevent moisture being deposited upon the flowers. Leave a little air on day and night, whatever the weather may be, until the plants have set the fruit. Keep the Vines rather thin, impregnate

the flowers, and stop the shoots one joint beyond the fruit, not watering until the fruit be set. The wet weather and the position of the frame is not favourable to the Melons setting. The cause of the Cucumbers being bitter is an imperfect elaboration of the sap, caused by slow growth, which may be obviated by a freer growth, promoted by more bottom heat and a moderately moist well-ventilated atmosphere. Do not overcrop, as that retards the swelling of the fruits, and conduces to the bitterness of which you complain.

**GREENHOUSE FERNS (H. W. Rose).**—The following are superior:—*Adiantum concinnum*, *Lomaria gibba*, *Asplenium dimorphum*, *Cheilanthes elegans*, *Davallia pyxidata*, *Gleichenia dicarpa*, *Neottopteryx australasica*, *Nephrolepis tuberosa*, *Pteris acrostichum*, *Adiantum sulphureum*, *Asplenium Vetschianum*, and *Lomaria Balli*.

**PLANTING A VINE BORDER (E. C. S.).**—We cannot, having regard to the well-being of the Vines, advise that the border be cropped, and especially if the roots are confined to the 5 yards width of space. In the case of old-established Vines, the feeding roots of which have penetrated far beyond the border, the border itself may be cropped with flowers. We know at least one cultivator, however, who places 6 inches of manure on his Vine border in the autumn, and in the spring plants it with Stocks and Asters, and few have finer Grapes and flowers; he never digs the border. So much depends on circumstances and the primary requirements of an owner that it is not easy to advise correctly. If the Vines are young and fine Grapes are expected, do not plant anything on the border; if they are old, and ordinary Grapes are only looked for, and flowers are particularly coveted, you may follow the example we have given.

**NAMES OF PLANTS (L. E. F.).**—It is *Hydrangea japonica* var. *occidentalis*. So many offsets from a Lily bulb is very unusual. (*A. B. C.*)—It is *Chrysanthemum segetum*, known popularly as the Corn Marigold and many other names. Flies frequent it probably for some secretion which they like. (*G. L.*)—The shrub in flower is *Oenothera aurea*; the other we cannot name without flowers. (*S. E. T.*)—Certainly not a *Sedum*, but *Saxifraga aizoides*, (*J. A. M.*)—Yes, it is *Oxum* (or *Sium*) *verticillatum*; the other is *Gnaphalium* or *pimpinellifolium*. (*W. C.*)—1, *Campanula persicifolia*; 2, *Gaillardia pinnatifida*; 3, *Malva moschata* alba; 4, *Deutzia scabra*. (*Mrs. H.*)—*Doronicum pardalianches* and *Helenium grandiflorum*. (*Logan*).—1, *Silene Armeria*; 2, Not a Grass, *Isoplepis gracilis*. (*R. X.*)—1, *Eryngium sp.*; 4, *Centaurea* sp.; 8, *Acantholimon glumacum*; 13, *Galega officinalis*. (*E. H. F.*)—*Epipactis latifolia*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### CALL DUCKS.

We have been asked to say something concerning the habits and peculiarities of Call Ducks, and to do battle for them with the secretaries of shows that classes may be given for them. We will gladly tell all we know, but do battle for them with secretaries we really cannot, as that kind of work is not very easy. We have recollections ourselves of working up an almost unknown breed some three or four years ago and getting it classes; and though we to a great extent succeeded, still the trouble and correspondence attending it was too great to make us give time just now to go through it again. Nevertheless, we are certain there are many committees who will gladly give Call Ducks classes if only a certain amount of the prize money or a fair proportion of entries are guaranteed.

We certainly do not find much about this graceful little breed of waterfowl in the poultry books; but then there really is so little to say. When we know there are two varieties, the White and the Coloured, and that the latter resemble miniature Rouens, while the others are like Aylesburys with orange bills, then we have come to the tether of their notice in most of the books on poultry. We confess we should like to see them more cultivated, for they are when good exceedingly graceful and a great ornament to lakes and pieces of water. We have seen a fine flock of both colours mixed together on a sheet of ornamental water, and the effect was charming. We believe they were much more commonly found a few years ago at the shows than now, for since the lovely little ornamental varieties of waterfowl have come in the Calls have had to go on the shelf. We are glad to find, however, they have many friends left, and we shall cordially welcome classes for them; for really, though the Carolinas and Mandarins are such glorious little creatures that we can hardly begrudge them their prizes, still it must be galling to exhibitors of Black East Indians, Calls, Muscovies, and such-like to find their pets always having to put up with those unsatisfactory commended cards.

Calls are still frequently used as decoys, for their frequent "quack, quack," often entices the flocks of wild Ducks to descend and pay a visit to their cousins. We know of a beautiful piece of water in the midst of a large tract of Kentish underwood which has always been called the decoy pond, and where, thanks to the Calls which live there, wild Ducks can always be seen in the winter when they are not to be found anywhere else in the neighbourhood.

Perfect pens of Call Ducks are rarely seen, and our own experience tells us they are very difficult to breed good. They should be very small, have very short bills indeed, and high round foreheads, all of which points are difficult to obtain. The colour of the Brown variety should resemble a Rouen in every particular—legs, bills, feet, and plumage; while the White should be a clear white free from any cream-coloured tinge, with an orange-coloured bill quite free from black specks. The best Duck we ever saw in our life was in head points like a perfect

Almond Tumbler Pigeon, but she had a black mark or two on her bill, and was thus spoilt for successful competition; and though all her ducklings were clear in beak, still not one of them had the perfect head and bill of the mother. The only way to secure these short bills and full foreheads is to breed from no other birds but those with those points developed as much as possible. We find long-billed Ducks generally throw longer-billed ducklings. There is the same difficulty in obtaining them small as there is in Game Bantams, and as they have voracious appetites it is troublesome to keep them on short commons. We had a brood this year which we tried hard to keep small, and so fed them but seldom, making them find their own living; but these birds, as soon as they got their wing feathers, flew after the chicken-feeder from coop to coop all round the chicken field, and got a meal from every batch. The result is that as we write we can see at the water's edge half a dozen of what might be fair-sized Aylesburys. Call Ducks are delicious eating, and being a little large for this purpose is a feather in their cap.

We think the best way is in rearing for exhibition to hatch a good many, make them forage for their living as much as possible, and then, picking out the very best in shape, size, and head, serve up the remainder as wanted with cayenne pepper and lemon. Call Ducks make splendid sitters and admirable mothers, but they are not good layers, often only laying twenty or twenty-five eggs in a season, as they keep with their ducklings nearly all the summer.

For breeding they have to be kept in pairs; and though in the laying time the drakes fight and quarrel fearfully, as soon as their wives begin to incubate they live together in perfect peace. The ducklings are delicate when first hatched, and very susceptible to cold and damp. We have known whole broods of ten and twelve when three or four days old go off in twenty-four hours; but once two or three weeks old and they thrive wonderfully well.

We know of no Duck that is so graceful in the air as a Call Duck. They fly in small flocks, and seem to fly merely for the sake of flying, circling in the air like Pigeons, rising higher and higher, till presently they dash suddenly down right into their pond. We have never known a single instance of one flying away. On the contrary, they seem quickly to know their own bounds, and are as tame as any other breed of Ducks. In the water they are most attractive, and dive in the liveliest manner possible before the eyes of visitors without being the least shy.

As regards classes for Call Ducks we hope those who keep the breed will come forward and show committees that they will fill them, and then there is no reason why they should not have their class at many shows as much as the East Indian. They did have a class at Oxford last year, but owing, perhaps, to its not being in the regular schedule, only being pasted-in as an after-thought, only eight pens appeared, and unfortunately Mrs. Bailey's pen, which was the best of the lot, was too late for exhibition. Still, here is an opportunity for Call Duck fanciers, for we are certain if they will only guarantee Mr. King, the Oxford Secretary, this year twelve entries, he will see they not only have a class and three prizes but a silver cup as well. The Palace people, too, are enterprising go-ahead folks, and if help is only promised we are sure Messrs. Howard and Nicholls will do all they can for them. This is the only way to bring the breed to the front. Secretaries must be shown that a class will pay, and to do this for the first few times the hand must be put into the pocket and the shoulder to the wheel, and then all will be plain and easy sailing. This is the only way that Black Hamburgs, the French breeds, Malays, and even Brahmas ever rose from the unhappy destiny of a variety class. We confess we hope Call Duck fanciers will do this, for we know of no breed of waterfowl which is more attractive or lively in its ways, and with them striking in appearance and happy in disposition.—W.

### THE LATE BRISTOL SHOW.

FROM the number of inquiries received by me there appears to be a general desire to know the financial result of the poultry show held in January last. I shall be glad, therefore, to give the information through the columns of those journals which so kindly assisted with subscriptions and recommendation. The total receipts amounted to £1179 15s. 1d., and the expenditure to £1076 17s. 9d., leaving a balance in hand of £102 17s. 4d. Now, as the loss on the previous show was about £70, and as I increased the prize list in the face of such loss by over £120, it follows that the last show was nearly £800 better than its predecessor.

This is a very satisfactory result so far as the past is concerned, but now a word as to the future. It has been hinted to me that as the show produced a balance it must be self-supporting and will not need subscriptions in future. The amount of subscriptions received by me last year was £113 12s., exceeding the surplus by £11, and if everyone withdrew their assistance there would probably be a loss of that amount. In addition to this,

I last year did the whole of the work connected with the show without assistance, working night after night till three and four in the morning, to save expense; but I cannot undertake to do this again, and there will be the additional expense of a clerk or assistant secretary. The trouble, anxiety, and responsibility of carrying out a large show like Bristol is immense, but I do not mind that. I think, however, that if I, or anyone else, is willing to take this trouble, exhibitors and others interested should support with subscriptions. Bristol is essentially a show requiring such help, and I trust that exhibitors, especially local ones, will not be backward in coming forward in connection with the show I hope to bring off as usual in January next.—H. CAMMERMAN.

### CASTLE DONINGTON POULTRY SOCIETY'S SHOW.

This Show was held on Wednesday the 21st in an excellent marquee, and Turner's pens were used. Unfortunately the field was one mass of puddle through the previous rains, though with the exception of one shower the day was tolerably fine. In the Rev. R. Story the Society possesses a Secretary who will without doubt push the interests of the Society regardless of all obstacles; this case being a proof of that gentleman's energy and perseverance, for, having collected fifteen special prizes of the value of £100 each, the entries showed up well, and an excellent show was the result.

Cochins headed the list with six classes, but only the first in Buff cocks was good, the others being booked. Hens were all good. Partridge cookeys a fair lot, but hens good; while the White cookeys were very poor, the hens being a nice lot, the first and special falling to a most excellent pen. Dark Brahmas cookeys were poor with one or two exceptions; but the first was a very good bird except in size, in which he was beaten by the second, which, however, had neither as good shape nor colour. Dark Brahma hens were a moderate lot, while Light Brahmas were poor except the winners; in hens the prize going more to size, shape, and leg-feather than marking, in which point they were not equal to the second. Dorkings were rather shabby in feather, but good in size and feet. Except the winners the Houdans were not good. Spanish were both good classes, the special going to a very fine pair of hens. Red Game cookeys were a large class; but the first, a substantial Black-breasted Red, stood quite out, and won the special; the second, a Brown Red, in nice order; and very highly commended a most promising young Brown Red. In hens all were Black Reds, and very good. A Pile chicken won in the next class, a Pile cock taking second; but the special went to a pair of Duckwing pullets in the following class; the second were Duckwing hens. Hamburgs were good in all classes. In both classes of Pencils Gold were placed first and Silver second. The winners in all cases were really good. In Spangled cookeys Golden won both prizes, no good Silvers being shown; but in hens first were Golden, to which the special was awarded, and second Silver. A Gold Poland won in the Variety of cookeys, and with a Le Fleche second; the special going to a pair of handsome Black Hamburg hens in the next class. Chickens were a large class, and one of the best, if not the best, in the Show. First were placed a grand pair of Duckwing Game; second large well-shown Buff Cochins; third Silver Grey Dorkings; and fourth Light Brahmas, while many other commendable were given. Two classes were provided for Bantams; in cocks first was a smart Black-breasted Red, and second a Black Rose-comb; and in hens first were about the most perfect pair of Blacks we have seen shown, and which won the special; and second a pair of White-footed. The Sallings classes were good; in cocks first was a Buff Cochins, and second Spanish, the special going to Dark Brahma hens, and second to Spanish. Ducks were pretty good in both classes. Of Turkeys and Geese there were but five entries.

Pigeons had five classes, of the quality of four of which little can be said; but the Variety class was very good, with twenty-two entries and sixteen pens noticed. First was a perfect pen of Blue Dragons, second Black Trumpeters, third Red Barbs, and fourth Black Magpies, while there were some other Blue Dragons which were worthy of prizes.

1. Winwood. 2. W. A. Bagnall. 3. H. R. Winwood. 4. H. V. 5. Hallam. Hens.—1. Special. 2. G. W. Elbert. Hens.—1. F. Paulmer. 2. W. Elbert. 3. J. J. Gann. 4. F. Elbert. 5. J. Gann. 6. F. Paulmer. 7. F. Paulmer. 8. F. Paulmer. 9. F. Paulmer. 10. F. Paulmer. 11. F. Paulmer. 12. F. Paulmer. 13. F. Paulmer. 14. F. Paulmer. 15. F. Paulmer. 16. F. Paulmer. 17. F. Paulmer. 18. F. Paulmer. 19. F. Paulmer. 20. F. Paulmer. 21. F. Paulmer. 22. F. Paulmer. 23. F. Paulmer. 24. F. Paulmer. 25. F. Paulmer. 26. F. Paulmer. 27. F. Paulmer. 28. F. Paulmer. 29. F. Paulmer. 30. F. Paulmer. 31. F. Paulmer. 32. F. Paulmer. 33. F. Paulmer. 34. F. Paulmer. 35. F. Paulmer. 36. F. Paulmer. 37. F. Paulmer. 38. F. Paulmer. 39. F. Paulmer. 40. F. Paulmer. 41. F. Paulmer. 42. F. Paulmer. 43. F. Paulmer. 44. F. Paulmer. 45. F. Paulmer. 46. F. Paulmer. 47. F. Paulmer. 48. F. Paulmer. 49. F. Paulmer. 50. F. Paulmer. 51. F. Paulmer. 52. F. Paulmer. 53. F. Paulmer. 54. F. Paulmer. 55. F. Paulmer. 56. F. Paulmer. 57. F. 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is well known to all practical minds that they are not of the value of a good old hen. Very highly commended were a pen of chickens, and one of old birds. In next class first were Piles and second Duckwing, both very good; and very highly commended Pile chickens. In the following class Blacks were very good and won the prizes, the cup going to Black Reds. In the Variety class a grand pen of Turkeys were placed first and Guinea Fowl second, some capital Black Hamburgs very highly commended, Minorcas, Silkies, and Malays making up the class. *Bouen Ducks* were large but out of feather, and Aylesburys a moderate lot, the cup for this section going to a pen of White Embden *Geese* in the following class, the second being Toulouse.

**DORKINGS.**—1, C. Widdas, Beechburn Grange, Howden-le-Wear. 2, W. Morritt, Gooly, Yorks. 3, J. White, Warley, Northallerton. 4, W. Morritt, W. Swan, Bedlington. 5, J. N. Lawson, 6, A. Buglass, Carrville, Durham; 7, J. White, Barnham Footpath. 8, W. Swan. 9, B. Shield, Swallow. 10, T. P. Carver, Boroughbridge. 11, G. Lowther, Tow Law; 12, J. Jacques, Richmond, Yorkshire. **COCHINS.**—*Cinnamon and Buff.*—Cup, 1, 2, and 3, G. H. Procter, Durham. *Any other variety.*—1 and 2, G. H. Procter. 3, J. Filston, Gilegate, Durham. 4, W. Newbiggin, Newcastle-on-Tyne. **SPANISH.**—Cup and 1, H. Beldon, Gilegate, Bingley. 2, R. Shield, Swallow. 3, S. Hyton, W. Jagg, Blyth. 4, J. Craig, Bridge End, Frosterley. 5, H. Dale, Old Ormsby, Middlesbrough; 6, M. Saunders, Lancaster. **POLANDS.**—1 and 2, H. Beldon. 3, J. T. Froud, Binschester, Bishop Auckland. 4, A. Buglass, Carrville, Durham. 5, J. Jackson, Tow Law; 6, W. Bearpark, Northallerton; 7, C. M. Saunders, Lancaster. **FAMOUS FOWLS.**—1, C. M. Saunders. 2, Rev. J. G. Milner, Hamsterley, Bishop Auckland. 3, R. Smith, Seaford.

**GAME.**—*Black-breasted and other Reds.*—1, W. Youngusband, Darlington. 2, J. & E. Prince, Nantwich. 3, G. Carter, Bedale. 4, S. Hyton. 5, J. K. Smith, Eaglescliffe; 6, J. Young, Morpeth. 7, W. Bearpark; 8, Miss M. J. Nelson, Cockshaw, Hexham; 9, A. Buglass, Carrville, Durham. *Any other variety.*—1, C. J. Young, Driffield. 2, W. Bearpark. 3, Webster & Adams, Beverley. 4, J. Gibson, Stanhope. 5, A. Buglass; 6, J. Rowell, Lints Green. **HAMBURGERS.**—*Golden-spangled.*—Cup and 1, H. Beldon. 2, R. Shaw & Dean, Halifax. 3, R. Keenleyside, Aycliffe, Darlington. 4, W. Simpson, Frosterley. *Silver-spangled.*—1, H. Beldon. 2, J. Robinson, Garstang. 3, C. J. Young. 4, R. Keenleyside; 5, G. Barks.

**HAMBURGERS.**—*Golden-pencilled.*—1, T. P. Carver, Langthorpe, Boroughbridge. 2, H. Beldon. 3, R. Keenleyside; 4, A. G. Mitchell. 5, J. M. Lawson, Ryhope; 6, J. Jackson, Tow Law; 7, A. Stephenson. *Silver-pencilled.*—1, J. Robinson, Garstang. 2, H. Beldon. 3, R. Keenleyside; 4, E. B. Gardner, Appleby; 5, Davidson & Pattison, Morpeth; 6, W. Jackson, W. W. Bearpark, Alncliff, Blyth. **GAME BIRDS.**—*Black-breasted and other Reds.*—Cup and 1, W. F. Entwistle. 2, G. Hall, Kendal. 3, G. Bell, Morpeth; 4, W. F. Entwistle. 5, G. Hall; 6, J. Bobson, Bishop Auckland; 7, Miss M. J. Nelson, Cockshaw, Hexham; 8, C. J. Young, Driffield. 9, W. Wardle, South Gosford, Newcastle. *Any other variety.*—1, W. F. Entwistle. 2, D. Hunter, Sunderland. 3, Miss M. J. Nelson; 4, W. F. Entwistle. 5, J. & E. Robinson, Sunderland.

**BANTAMS.**—*Except Game.*—1, H. Beldon. 2, W. & S. Sherwin, Ripon. 3, Rev. J. G. Milner, Hamsterley, Bishop Auckland; 4, E. H. Ashton, Mottam, Manchester. 5, Milner & Beaman, 6, R. Smith, Norton, Malton. **ANY OTHER VARIETY.**—1, Miss Kirk, Givendale, Ripon. 2, J. Young, Driffield. 3, H. Beldon. 4, H. B. Hawkins, Seaham Harbour (Malay); 5, T. P. Carver (Black Hamburgs); 6, H. A. Cava, Sunderland (Silkies); 7, C. Venables, Sheraton, Castle Eden (White Minorcas); 8, W. Grainer, East Boldon, Newcastle (Minorcas).

**ANY VARIETY.**—*Chickens.*—1, E. Pritchard, Wolverhampton (Dark Brahmans). 2, G. H. Procter, Durham (Buff Orpingtons). 3, Blesburn & Maynard, Northallerton (Brown Red Game). 4, J. T. Froud, Binschester, Bishop Auckland (White Dorkings). 5, F. E. Gibson, Middleton-in-Feesdale (Dark Brahmans). 6, T. & G. Kidson, Old Ormsby, Middleton (Golden-pencilled). 7, T. Grey, Greenhead, near Stanhope (Game). 8, J. G. Walker, Heaton, Sunderland (Golden-pencilled). 9, T. Grey (Silver-spangled Hamburgs). **DUCKS.**—*Bouen.*—1, H. Beldon. 2, W. Canney, Bishop Auckland. 3, Miss Scott; 4, J. Young. *Aylesbury.*—1, F. E. Gibson. 2, W. Canney. 3, T. Scott. **COCHINS.**—C. Venables, Sheraton, Castle Eden. **GREEN.**—Cup and 1, C. J. Young. 2, H. Farret, Durham. 3, W. Love, Wokingham.

**JUDGES.**—Mr. E. Hutton.

## OLECKHEATON SHOW OF POULTRY, &c.

This took place on the 24th, and the day proving very fine the gathering was superior, no other society in this locality coming in for such an amount of popular patronage. The pens were constructed of wood, with strands of wire netting stretched in front, which, while substantial, were not such as would facilitate the handling of the birds, the openings being to the back. Money prizes were offered, there being no cups or other extras, but three prizes in each class of poultry, and two in each class of Pigeons and Rabbits.

Game were divided into five classes, and among them were many good birds, but some were sadly out of feather. In single cocks Mr. Brierley won with a capital Brown Red, the second going to a Pile, and third to a Brown Red; but the first requires a little more practice in the show pen. The Pile was a handsome bird. Black Reds were good in quality, but rather faded. Brown Reds being good as regards the winners. Duckwings were smart in style, the hens particularly nice in colour. In the Variety Piles won, and these were very good; first a very fine quality, second very substantial but old, and consequently not as correct in colour, and a little thick; and third a cock, with a very young pullet—an objectionable way of showing. *Dorkings* a grand class, and all Dark Greys. In *Cochins* the winners Buff, very good in colour and quality; the first-prize hen particularly good in shape. Any other variety, nice White and Partridge. *Spanish* were first a most uncommon pen as regards quality; second cock grand, and hen pretty good; the third a good hen, but poor cock; highly commended a better hen, but cock though fine was small in face. The finest three in *Brahmas* were a close run, first by far the best cock, but hen, though good, failing; second best hen, but cock not so well marked and smaller; third, a good pen in colour, but wanting

in finish. The worst feature of the schedule of this Society is the distribution of the prizes in *Hamburgs*, for while Black Hamburgs are provided with a class, Gold and Silver of each kind are classed together, and we would strongly recommend a revision of this section for another show. In *Spaniels* first were Gold, and second Silvers; and in *Pencils* first Silver, and second Gold, the whole being good; while Black Hamburgs were one of the best classes. In *Game Bantams*, Black-breasted Reds, the first were a good old pen; second a small smart cock, with a pullet; and third a rather large good-coloured cock, with a pullet. In the next Piles won all the prizes, and the whole were very good; some capital chickens coming in for the highly commended. In the following class Blacks were the winners; and in the Variety class Gold Polands, Crève-Cœur, and Silver Polands won; and in the Selling class Spanish and Brown Red Game. In chickens, for which one class was provided, some good pens were shown; the first White Cochins, second Light Brahmans, and third Dark; a good pen of Silver Pencils were very highly commended. In *Aylesbury Ducks* were some young birds of this year of great size and purity of quality. The *Bouens* more numerous, and very even, although mostly out of feather; and in the Variety class, which was a most attractive one, a splendid pair of so-called Yellowbills first, Chilian Teal second, and Kasarkas third. *Geese* and *Turkeys* few in number, but very good in quality.

For *Pigeons* there were ten classes. In *Carriers* Duns and Blacks won respectively. The *Pouters* proving one of the best classes in the Show; first a grand Blue cock, second a Blue hen, and highly commended a good Black cock, which was a little lame, however. *Tumblers* poor; and *Fantails* only moderate in quality. *Dragoons* were as usual very good, and the winners Blue, as near perfection as we think it possible to get them. In *Turbits* only the winners were of any note, both of which were Reds. In *Jacobins* Reds also won, both pairs nice in all points. In Long-faced Antwerps only one pair really answered that description, these being Blue Chequers; the second, Red Chequers, were good, but the cock too short in face. Short-faced Antwerps were a grand lot, the competition close, the winners being Silver Duns, and very true to head, eye, and colour properties. In the Selling class Blue Owls were first, and Archangels second.

*Rabbits* were not numerous. In *Lop* bucks the first went to a Black, 21½ by 4½, large, and good in other points; second a Fawn, 20½ by 4½; very highly commended a Tortoiseshell, 21 by 4½, not equal, however, in eye and condition. Does were Fawn and white first, 21½ by 4½; and second 90½ by 4½, young, and nice in bloom. In the following class a Silver-Gray was first and Angora second; and in does first was Silver-Gray and second Himalayan, both very good. During the arbitrations the Secretary himself saw to the feeding of the birds.

**GAME.**—*Any variety.*—Cock—1, C. W. Brierley, Middleton. 2, R. Walker, Gomersall. 3, G. Fearley, Kirkstall. 4, E. Wilson, Black Red. 5, J. Mason, Worcester. 6, R. Hemmingsway, Shelf. 7, J. Crowther, Liversedge. 8, E. Aykroyd, Boscalth. 9, Brown Red. 10, C. W. Brierley. 11, J. W. Thornton, Boscalth. 12, E. Wilson, Boscalth. 13, E. H. O. Mason, Boscalth. 14, E. Aykroyd. *Any other variety.*—1, E. H. O. Mason. 2 and 3, R. Walker. 4, W. J. Mason, Drighlington. **DORKINGS.**—1 and 2, J. Walker. 3, W. H. Crabtree, Levenshulme. 4, J. Newton, Sladen; 5, W. Harvey, Sheffield. **COCHINS.**—*Except Game.*—1, J. Walker, Boscalth. 2, W. Harvey, 3, C. M. Gidwick, Kelghley. 4, W. H. Crabtree. *Any other variety.*—1, W. Whitworth, 2, Longdendale. 3, H. Beldon, Bingley. 4, T. H. Barvick, Farnham. **SPANISH.**—Black—1, H. Beldon. 2, F. Bentley, Bradford. 3, J. Thresh, Bradford. 4, J. Powell, Bradford. **BRAHMA FOOTPATH.**—1, W. H. Crabtree. 2, W. Whitely, Sheffield. 3, U. Holt, Boscalth. 4, W. H. Crabtree. 5, W. Schofield, Birkenshaw; 6, J. Moore, Holmfirth.

**HAMBURGERS.**—*Gold or Silver-pencilled.*—1 and 2, H. Beldon. 3, H. Digby, Lindley. *Black.*—1 and 2, H. Beldon. 3, W. Bentley, Holmfirth. 4, C. M. Gidwick. *Gold and Silver-spangled.*—1, T. Dean, Kelghley. 2 and 3, H. Beldon. **BANTAMS.**—*Game.*—*Black or Brown Red.*—1, W. F. Entwistle, Wyke. 2, R. J. Hartley, Altricham. 3, A. Smith, Norththorpe. 4, S. Sugden, Cleckheaton. 5, W. F. Entwistle. 6, F. Pirch, Heckmondwike. *Any other variety.*—1, W. F. Entwistle. 2, J. Wright, Wibsey. 3, A. Smith. 4, W. F. Entwistle; 5, G. Noble, Dewsbury; 6, J. Naylor, Heckmondwike. *Any variety except Game.*—1 and 2, H. Beldon. 3, Milner & Beaman, 4, H. Beldon. **ANY OTHER VARIETY.**—1 and 2, H. Beldon. 3, W. H. Crabtree. 4, T. Webb, Sutton Coldfield.

**SELLING CLASS.**—1, W. Harvey. 2, J. Thresh. 3, A. Sugden, Swinley. 4, J. Powell. **ANY VARIETY.**—*Chickens.*—1, C. Carr, Wileton. 2, G. Brown, Eamery, Ware. 3, W. Schofield. 4, H. Digby. 5, T. Webb. 6, J. S. Stott, Copley; 7, W. Bentley. **DUCKS.**—*Aylesbury.*—1 and 2, J. Walker, Boscalth. 3, G. Holt, Boscalth. 4, W. Walker. 5, J. Newton. 6, G. Marshall, Dewsbury. 7, J. Walker. 8, H. Beldon; 9, Wharton, Littlethorpe; 10, H. Harrison, Cleckheaton; 11, G. Holt. 12, B. Parkinson. *Any other variety.*—1 and 2, J. Walker. 3 and 4, A. & W. H. Silvester, Sheffield.

**GREEN.**—1, J. White, Whitby. 2, J. Walker. **TURKEYS.**—1, J. Walker. 2, J. H. Rockett, Selby. **PIGEONS.** **QUARRIES.**—1 and 2, W. Harvey, Sheffield. 3, H. Yardley, Birmingham; 4, H. Sykes, Huddersfield; 5, S. Seaton, Leeds. 6, J. G. Arkwright, Holmfirth. **POUTERS.**—1 and 2, W. Harvey. 3, F. Seaton. 4, T. Foster, Bingley; 5, F. Seaton. 6, J. H. Sykes. **FANTAILS.**—1, J. F. Loveridge, Newark. 2, S. Lawson, Preston. 3, J. F. Loveridge; 4, F. Seaton. **DRAGONS.**—1 and 2, R. Woods, Mansfield. 3, H. Yardley; 4, W. Bawhill, Cleckheaton. **TUMBLERS.**—1, H. Yardley. 2, F. Seaton. 3, S. Lawson, Preston. **JACOBS.**—1, T. Holt. 2, H. G. Richardson, Boscalth. 3, S. Lawson; 4, W. Harvey. **TURBOTS.**—1, F. Seaton. 2, G. Richardson. 3, T. Foster.



**APRIL 29, 1878.]**  
**APRIL 29, 1878.]**—*Long-faced*.—J. Crossland, Wakefield. 2. W. F. Entwistle, Mr. E. Foster, Huddersfield; O. Crossland, Liverpool; E. Monney, Low Moor; T. Foster, Huddersfield. 1. W. F. Entwistle. 2. J. Crossland; 3. A. Brook, Bradford. *var.* W. F. Entwistle. Mr. T. Foster; 4. Crossland; 5. Searcy; 6. Harvey.  
**SELLING CLASS**.—1. J. O. Arkwright, Holmfirth. 2. J. F. Crowther, Miffield. 3. G. M. Barton, Leeds. 4. R. Longbottom, Cleckheaton; 5. Lawson, Preston. 6. W. Smith, Northowram.

#### RABBITS.

**LONG-EARED**.—*Black*.—1. R. Murgatroyd, Bowling. 2. J. M. Mander, Wakefield. 3. A. Atkinson, Huddersfield. 4. L. E. & W. Miller, Bowling. *Do.*—1. A. Atkinson. 2. J. M. Mander.  
**ANY OTHER VARIETY**.—*Black*.—1. J. Hallas, Huddersfield. 2. J. Golder, Bradford. 3. Found & Chapel, Dewsbury Moor (3). 4. G. Turfey, Cleckheaton. *Do.*—1. Found & Chapel. 2. J. Hallas. 3. A. Atkinson; 4. A. Lunn, Huddersfield; 5. Golder. 6. J. Seard, Cleckheaton.

**JUDGES**.—Mr. J. Dixon, Clayton; Mr. E. Hutton, Pudsey.

### GREAT GRIMSBY SHOW OF POULTRY, &c.

THIS was held on the 21st inst. in connection with the Lincolnshire Agricultural Society, and although the classes were not so numerous as last year it was a decided success. On the day of our visit (Friday), the only fine day, it was so crammed with people that it was with the greatest difficulty we were able to see the birds at all. Mr. Teebay judged, and except in one or two instances gave the greatest satisfaction.

In *Dorkings*, ten entries, first was a large and good Dark cock with a nice hen; second a large bird of quality; third were promising chickens. In *Red Game* first went to a grand pen of Black Reds, though full in feather; second moderate Brown Reds; we preferred the fourth pen to this. In the next class first went to neat-headed Duckwings, though not good in colour; second were fair birds of the same colour, but not in such good feather; rest poor. In *Cochins* first went to a fine old pen of Buffs, the cock having a deal of white in his hackle; second *Partridges*, which we would have put ahead, both birds being of rare quality; third contained a grand White hen. In *Brahmas* first went to Darks, the cock a nice bird; second very superior Lights. *Spaniards* were a wretched lot, the only good bird being the first prize hen. In *Spangled Hamburgs* but one pen competed, these being very good Golden. In *Pencils* first contained a richly coloured cock with a grand tail, though small in ear; second not so good as the third, the cock being much too dark, white in the face, and without any lacing in his tail, the hen being poor; third a good hen both in colour and marking, her partner being a very smart young cockerel, good in head and ear, and fair in colour. In *Houdans* first a Dark cock good all round, with a nice hen; second a fine cock in size, but ugly in comb; the hen was very good. In *Orpingtons* the first hen was a beauty, but the cock very squirrel-tailed; second also bad in this respect; third a fine cock, but a bad hen. No. 54 (Cuckoo) a fine cock. In *Polish* first a good pen of Golden, the hen nicely marked, and the cock very neat and rich; second not so good as the third. *Bantams* numbered nine pens, first being a very stylish pen of Black Reds; second fair Duckwings; third Brown Reds. Blacks were first in the next class, but they were nothing extra; second went to Silver Seabrights, the cock a nice bird, but the hen poor. In the Variety class first went to La Flèche of nice quality, but we thought the second Black Hamburgs much more perfect. In the Selling class for single cocks first was a very rich Buff, and in that for pairs of hens good *Spaniards* were victorious and quickly claimed; second were a cheap pair of *Cochins*. In *Geese* Mr. Walker's Toulouse just beat Mr. Derry's fine Embdens. *Ducks* were good, Mr. Walker winning first and second in all three classes, the latter with *Spotted-bills* and *Chilian Pintails*. *Turkeys* and *Guinea Fowls* mustered only one pen each.

*Pigeons* were very few, especially the Carriers. There was a nice pair of *Almonds* first in the Tumbler class, and in the Variety class first went to good Black Barbs; second to fair *Yellows*. The pens were supplied by Mr. Turner of Sheffield, and the whole management was entrusted to George Haliwell, everything going off satisfactorily.

**BONNIES**.—1 and 4, J. Walker, Spring Mount Road, Leeds. 2, W. Roe, Newark. 3, W. H. Robson, Beepham, Lincoln.  
**GAULS**.—Red or any other dark colour. 2, W. G. Waters, Blaham, Brigg; C. Chaloner, Whitby; 3, C. Chaloner, 4, H. E. Martin, 5, J. B. Selby, 6, J. B. Selby, 7, J. B. Selby, 8, J. B. Selby, 9, J. B. Selby, 10, J. B. Selby.  
**DOMESTIC**.—1, S. B. Beighton, Farusfield. 2, W. G. Waters, Blaham. 3, J. B. Selby, 4, J. B. Selby, 5, J. B. Selby, 6, J. B. Selby, 7, J. B. Selby, 8, J. B. Selby, 9, J. B. Selby, 10, J. B. Selby.  
**COCHINS**.—1, J. Walker. 2, Mrs. A. Tindal, Aylesbury. 3, W. Whitworth, jun., Longlight.  
**SPANISH**.—1, W. H. Crabtree, Levenshulme. 2, Mrs. Tindal. 3, J. Wells, Winterton, Brigg.  
**BRAMBLING**.—1, R. Newbitt, Epworth. 2, W. G. Waters. 3, E. Bennett, jun., Grimsby.  
**HAMBURGERS**.—*Spangled*.—1, J. Long, Bromley Common. *Pencilled*.—2, R. Newbitt, Epworth. 3, Smith & Taylor, Lincoln.  
**FARROWING**.—*Houdans*.—1, G. W. Hibbert, Godley. 2, W. Whitworth, jun. 3, R. Coney, Alford. *Crepe-Cour*.—1, W. H. Crabtree, 2, G. W. Hibbert, 3, Mrs. R. Green, Brigg.  
**POLANDS**.—1 and 2, A. & W. H. Silvester, Sheffield. 3, G. W. Boothby, Louth.  
**BANTAMS**.—*Game*.—1, G. W. Waters, Blaham. 2 and 3, W. G. Waters. *Any other variety*.—1, W. G. Waters. 2, A. & W. H. Silvester. 3, J. A. Dakin, Mottam, Manchester.  
**ANY OTHER VARIETY**.—1, Mrs. A. Tindal. 2, J. Long.  
**SELLING CLASS**.—*Cock*.—1, Smith & Taylor, Lincoln. 2, W. Wright. 3, W. Roe. 4, W. Whitworth, jun. *Hens*.—1, R. Newbitt. 2, Taylor & Smith. 3, Mrs. A. Taylor. 4, Simpson & Donat, Bedale.  
**SELLING CLASS**.—1, R. Newbitt. 2, J. Walker. 3, G. W. Boothby. 4, Mrs. Spencer, Howham, Brigg. 5, W. Bygott.

**GREENS**.—1, J. Walker. 2, T. M. Derry, Gedney, Wisbeach. 3, W. G. Waters, Boston. 4, J. Walker. 5, J. Walker. 6, Mrs. A. Tindal, Boston. 7 and 8, J. Walker. 9, W. Bygott, Ulesby Junction. *Any other variety*.—1 and 2, J. Walker. 3, A. & W. H. Silvester.  
**TURKEYS**.—1, J. Walker.  
**GUINEA FOWLS**.—1, K. Small, Barrowden.

#### PIGIONS.

**CARRIERS**.—1, J. James, Bath. 2, F. Hodgson, Driffield.  
**FOURERS**.—1, H. Yardley, Birmingham. 2, A. Spencer, Driffield.  
**TUMBLERS**.—1 and 2, A. & W. H. Silvester.  
**ANY OTHER VARIETY**.—1, H. Yardley. 2, C. Woot, Hall.

### CRYSTAL PALACE GOAT SHOW.

THIS was held on the 24th inst. The following were the awards:—

**SHORT-HAIRED**.—*Male*.—1, F. Wood. 2, A. Hunt. 3, O. Bartlett. *Female*.—1, J. Maher. 2, T. Green. 3, Extra. 4, E. Evans. 5, G. Vincent. 6, Extra. 7, F. Wood. 8, J. Maher. 9, J. Maher. 10, J. Maher. 11, J. Maher. 12, J. Maher. 13, J. Maher. 14, J. Maher. 15, J. Maher. 16, J. Maher. 17, J. Maher. 18, J. Maher. 19, J. Maher. 20, J. Maher. 21, J. Maher. 22, J. Maher. 23, J. Maher. 24, J. Maher. 25, J. Maher. 26, J. Maher. 27, J. Maher. 28, J. Maher. 29, J. Maher. 30, J. Maher. 31, J. Maher. 32, J. Maher. 33, J. Maher. 34, J. Maher. 35, J. Maher. 36, J. Maher. 37, J. Maher. 38, J. Maher. 39, J. Maher. 40, J. Maher. 41, J. Maher. 42, J. Maher. 43, J. Maher. 44, J. Maher. 45, J. Maher. 46, J. Maher. 47, J. Maher. 48, J. Maher. 49, J. Maher. 50, J. Maher. 51, J. Maher. 52, J. Maher. 53, J. Maher. 54, J. Maher. 55, J. Maher. 56, J. Maher. 57, J. Maher. 58, J. Maher. 59, J. Maher. 60, J. Maher. 61, J. Maher. 62, J. Maher. 63, J. Maher. 64, J. Maher. 65, J. Maher. 66, J. Maher. 67, J. 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### DARI.

DARI is frequently advertised in the Liverpool papers, and I have often seen and heard it well spoken of as calculated to promote laying in fowls. My own experience of it is

Bantams of all ages and all breeds competed in one class for a 15s. prize, and we were fairly amazed to see fourteen entries of such good birds. Of course Sebrights were first; oh! how jealous other Bantams must be of the late Sir John's manufactures, for they always have the cup, and always win the prizes in the Variety class, and yet when they have a class to themselves their owners lose courage and keep them at home; vide Croydon, Dorchester, and elsewhere.

In Variety class Polands first, and good Black Hamburgs second; and third going to what once we saw at a show (Southampton) with the title of "Gangesians."

Geese and Ducks mustered well, and the quality was good. The fancy Ducks were beautiful, but we grieve to say we fear these very ornamental and lovely little pets are driving the useful and excellent-eating Muscovies, East Indian, Call, and Wild Ducks out of the region of poultry shows.

### RABBITS AT BRAMLEY.

Your reporter says, "In this section [of the above Show] we, however, noticed some rough handling of the Rabbits by a reporter, against which we at once enter our protest." As a breeder and fancier of thirty-five years standing I must say I quite agree with the above remarks, but am prepared to be opposed by some individuals who are frequently judging Rabbits and reporting their own awards!

On my entering the tent at the Bramley Show my attention was drawn to the Rabbit section, when I was sorry to notice a man with a very heavy walking-stick molesting and roughly poking a Silver-Gray belonging to Miss Mortimer, and more surprised on learning the name of this Rabbit-poker, who also possessed a Rabbit in the same class. This treatment I was also told had been going on at continuous intervals during the whole of the morning. A contemporary remarks on the same Rabbit as follows:—"Miss Mortimer's buck took second, and did not look well owing to its very long journey and confinement in its box." But I feel more inclined to think that the stick-poking had more injured its looks than the long journey.

I will add that reporters should be admitted before the general public, that they may have time to well examine the specimens, and more especially to see what specimens are really there to be judged and what come "late." I think judges would be thankful for this.—S. G. HUDSON.

### GUINEA FOWL HATCHING.

As I wrote to you a week or two ago about my Guinea Fowls' eggs not hatching, I may as well mention that I let the hen Guinea Fowl sit. As she had laid so many eggs I was afraid she might lay more and die if I took her off, and much to my surprise she hatched fifteen young birds! Two died in coming out, two eggs were addled, and there was only one blind one out of the twenty she sat upon. Anything worse than the way she sat cannot well be imagined, as she began by sitting in the day and roosting at night. She then came off constantly for two hours at a time, frequently twice a-day, and it is only the last ten days that she sat really close. I never had a Guinea Fowl hatch her young before, as they invariably ceased sitting at the end of a week or so, and am rather puzzled how to manage. The cock at first pecked the young birds, but seems to have taken to them now, so I am leaving him with them as the hen will not stay quiet without him. They were hatched on the 16th.—PUZZLED.

[It is not an uncommon thing for a Guinea Fowl to hatch her young. That they do not do so always is to be attributed to the fact that they are not good sitters. Three or four will lay in the same nest. The writer of this once found a nest in a patch of furze quite half a mile from any house. It had sixty (60) eggs in it. More liberties may be taken with their eggs than with most others on account of the great thickness of the shell. As it is the opinion of most practical people that Guinea Fowls pair, we should not hesitate to leave the cock with them. Monogamous birds are seldom harsh to their young.]

### JACOBIANS.

I AM always specially glad to see an article on Pigeons written by an intelligent fancier who can look back a good many years, because the fancy is an historical thing, not an affair of the last few years. Hence, therefore, I was glad to see the article on Jacobins in our number for July 15th, by the veteran fancier of Dundee, Mr. Ure.

I agree with him in some things, and differ from him in others. I agree with him in regard to what Jacobins were as far as I can remember, looking back for about thirty-five years, when as a young boy I entered the fancy, and just now Jacobins are especially interesting to me, as I am breeding, watching, and experimenting with that variety of Pigeon. First, the old class of Jacobins had not a stumpy Baldhead look, but had long

flights and tails, and were narrower in the shoulders. Second, I think the soft silky texture of the feathers of which Mr. Ure speaks, and which I remember well (having so often petted and stroked the down-like feathers of the hood and chain), was chiefly found in birds that were of a light mottled colour. Perhaps this was because so many of the feathers were white. I saw one such bird a dozen years ago in a dealer's shop, and bought it at once, but, alas! though a very gem, he was too old to propagate his species. I had, I may observe, saved up one hen as good with which I paired him. I never can see why the mottled birds have been discarded, for they were unique in colour, and from the lightest could be bred whites with pearl eyes. The softness of feathers is not seen in the reds, the commonest colour, but to my mind the least pretty of any. The old fanciers always preferred the yellows. I agree, too, with what Mr. Ure says upon the hoods being further back now than they used to be, but I have seen some recently which had not this fault. I think more of the eye of the Jacobin being a clear pearl than apparently does Mr. Ure. A bull eye to my mind spoils the head, but one eye in old days, as now, very frequently came of that objectionable colour, no doubt arising from the white head.

In regard to the mane, there I differ utterly from Mr. Ure, holding it to be a very great beauty. But the difficulty I find in getting the beak short. Oh, for a good short face in addition to other beauties! then you see a face which gives a fancier pleasure to look at, and with it usually goes that fall in the back which is seen in a good Jacobin. I take, therefore, and endorse the points mentioned by Mr. Ure, "fine head, hood, and chain, thin shoulders and length and silkiness of feather," and add, "pearl eye, good mane, and the Jacobin carriage." The bird has nothing to do with the Baldhead Tumbler, and I want him as unlike that bird as possible.

The Jacobin is a particularly ornamental Pigeon, and is seen most to advantage when having its free flight about a house quite in the country. See a number of various colours promenading on the gravel walks and peeping about the front porch, posing themselves now and then as if for admiration, then flying a few yards and alighting near you, not being birds of much flying powers, and they make admirable ornaments around a house, and the beauty of them is that the better bred they are the more ornamental they are in the estimation of every looker-on. The larger the hood and chain the prettier they look, the smaller the head the neater they look, and so on even to a non-fancier's eye. But I want the silky plumage Mr. Ure speaks of, which when a bird lives at large in the perfectly pure air of the country home adds so much to its beauty, and the long flights and tail. In short, just what a Baldhead should be, a Jacobin should not be.—WILTSHER RECTOR.

### A BEE-KEEPER'S DIARY.

LAST December you inserted an account of my first attempt to save bees from the burning. In September I rescued and fed-up in empty hives altogether twenty-three condemned colonies. All were made snug for the winter months in nine hives, making with two hives which I had before eleven stocks to stand over for this spring. I promised to send to you an account of my success or failure in trying to make the most of them this summer. For the purpose I have kept a diary of my proceedings.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Position of apiary under a south hedge, with 8-feet walk between it and the back of the hives. Entrances all facing due N., but all provided with plugs which can be used to narrow the doorway to any size required.

1. Three swarms united September 8th, 1874, from garden. No. 8 in 14-inch hive.
- 2, 3, 4, 5. Nine swarms from cottager's garden. No. 2, September 2nd, 1874, in 14-inch hives.
6. Three swarms united, September 8th, 1874, from garden. No. 3, in 14-inch hive.
- 8, 10, 14. Six swarms from garden. No. 1, August 28th, 1874. Removed from under a walnut tree facing S. February 18th, 1875. One hive found dead, foul brood, formerly four hives, with two swarms in each.
12. Swarm of 1874, from stock purchased March, 1873. Removed from under walnut tree, February 18th, 1875.
16. Bar-frame hive tenanted with artificial swarm, May 26th, 1875.
7. Swarm from No. 4, in 18-inch hive. June 6th, 1875.
9. Splendid cast from 14, placed in 18-inch hive, June 8th, 1875.
11. Artificial swarm and bees driven from an old swarmed stock, joined and placed in 30-inch hive, June 14th.
13. Old stock from which artificial swarm was driven June 14th. Entrance stopped and opened June 17th.
17. Two heavy swarms bought of villager, united in 30-inch hive May 28th, 1875.

The above will at once show the position of the hives and the origin of their occupants as my apiary now stands. In the following notes the hives are referred to by their numbers.

† Bar-frame hives.

\* Unoccupied post.

DIARY FOR 1875.

February 10th.—No. 5 found perished, dysentery; 2 and 3 very weak.

March 1st.—Took 2 and 3 into greenhouse. The warmth set them moving. Fed with syrup. Weather miserably cold. Snow on the ground.

April 1st.—No. 2, all dead } Dysentery in both cases. Plenty  
April 7th.—No. 3, all dead } of sealed food in both hives. Ob-  
tained lots of clean guide combs. Fed all hives gently.

May 4th.—Placed 20-inch hive under No. 8. Stopped entrance to top hive. Bees very quiet.

May 5th.—No. 8 doing well and working combs into nadir. 1, 4, 6, 14 growing very strong. 12 seems weak but healthy. Fruit blossoms fully out. The various kinds of willow have supplied abundance of pollen during the past month, but weather so cold that the bees can seldom seek it, often dying in the attempt, being frozen by the cold E wind. Have discontinued feeding with syrup, finding barleysugar a cleaner and more gentle substitute. I give it over the centre opening, placing a flower-pan inverted above it.

May 18th.—No. 1, filled a flower saucer with combs and partly with honey. Cut off the saucer and placed super with guide combs. May 20th.—Bees in No. 1 commence in super.

May 24th.—Placed 20-inch hive under No. 6. Bees instantly took to it.

May 25th.—Drove an artificial swarm from No. 4 into a 6s. 6d. Abbott bar-frame hive. Placed it on No. 18, and the stock returned to its own stand, the number of bees left in it being small. Two outer combs fell, from which I obtained 5 lbs. of pure fruit-blossom honey.

May 26th.—Took a strong artificial swarm from No. 10, and with it tenanted a bar-frame hive. Placed the swarm on No. 10, and removed the stock to No. 8, having closed the entrance. 4, 6, and 16 doing well.

May 28th.—Shook out two swarms of to-day bought of villager into 20-inch hive. No fighting. Placed on No. 17 and fed. Fed all new swarms with syrup.

May 31st.—Natural swarms from 8 and 1 placed on 12 and 14 in 18-inch hives, and the stocks 12 and 14 removed to 2 and 5 respectively.

June 3rd.—Placed super on No. 4. Great cluster outside No. 8 all night. Weather very sultry.

June 4th.—Placed supers on 5 and 14.

June 6th.—Heavy swarm while at church from 4. Hived at 4 p.m. into 18-inch hive and placed on 7. Continue to feed all new swarms at night and on cloudy or wet days.

June 7th.—No. 14 very strong. Bees hanging out.

June 8th.—Cast from 14 very heavy, but as heavy a mass of bees left in the hive. (There was a good peck of bees put into 14.) Placed in 18-inch and on No. 9 stand.

June 10th-14th.—Very wet and cold. Fed all swarms.

June 14th.—Afternoon finer. Bought two old stocks. Drove bees from one entirely which had sent out a swarm a few days before. Also drove a heavy swarm from the other stock. Joined both these at evening in 18-inch hive, and put them on stand No. 11. Placed the empty stock with lots of brood in it over No. 3. Removed the other stock in evening, closed the entrance, and placed it on No. 18. The super had been removed from No. 1 when it swarmed. Bell-glass placed over No. 1 to-day, and bees took to it.

June 15th.—Gave water through the hole in the top of No. 18, which I cut and covered with perforated zinc last evening.

June 17th.—Opened entrance to No. 18. Bees work in and out well, none returned to their old stand, about 200 yards from my garden. Clover in flower 100 yards distance.

June 19th.—Very heavy swarm from No. 5. Super deserted with two nice combs in it. Joined this swarm to No. 12, which appeared weak. Bean field in flower very near to which the bees work. Clover out to-day.

June 19th-24th.—Bees working well, no more symptoms of swarming. Placed small ball-glass over 8.

June 24th-30th.—Great change in the weather. Stormy and cloudy. Bees cannot get out at all day after day. This being the best season for honey-storing, the "look-out" is a bad one, a small harvest is probable. Drones killed off in several hives.

July 1st.—Rain the whole day.

July 2nd.—Showery. Bees go out but little. Gave a small quantity of syrup to four lightest hives.

July 3rd and 4th.—Weather very bad both for bees and hay. N.B.—I have lately noticed white grubs being dragged from the hives and pitched over the floor-board. They are doubtless being killed off to lessen the hungry population.

July 5th-8th.—E. wind, cold but a little finer. Bees go out a little for honey from the limes. A splendid avenue of these glorious trees now in full blossom, and the mellifluous treasure being washed away by the rains. Drones are lying dead in numbers around the hives.

July 9th.—Wind W. Heavy rains again. Not a bee out.

July 10th and 11th.—Very showery. Many bees tempted out and drowned.

July 12th.—Fine and warm. Bees crowding out, but the flowers all too drenched to be worked upon.

July 13th-15th.—From 11 a.m. on the 13th until 10 a.m. on the 15th an incessant pour-down of rain from S.S.E.

July 16th.—Cloudy and showers. The bees must be fast consuming what little honey they have stored in the spring.

July 17th.—Torrents of rain from N.E.

July 18th.—Fog until 11 a.m., then sultry and sunny. Bees working with all their might. The glasses of supers which had been deserted again full of bees. This I fear is but a break between storms. Every indication of rain again from the west.

July 19th.—Torrents of rain again from S.S.W. The season is now so far advanced for this neighbourhood that I must expect no honey this year, but that I must feed them all in autumn. From June 24th to present date the bees have not had but two days for working, and so I send my diary up to this date, as I am going from home for some time. In late autumn I hope to tell you the results of my examination of the hives, and the number of stocks I rescue.—P. H. P., *Offley, Hitchin.*

# MANCHESTER HONEY SHOW FOR 1875 ABANDONED.

OWING to the long-continued unfavourable weather for bees in this locality, the Committee of the proposed Show have thought that an exhibition worthy of the name, or of the expense and trouble necessary, could not be secured this year, and therefore have decided not to have one. Some disappointment will be felt by those who have been at some expense in preparing for a competition. More disappointment would probably have been felt if we were to beg and spend £50 and produce little for it. Yet, having an Exhibition at Manchester this year has been abandoned with reluctance.—A. PARTIGRAW.

## QUEEN BEES FROM EGGS.

SEEMING that the question as to whether bees have the power to raise queens from the eggs which produce ordinary workers is still a debateable one, the following facts which have recently occurred in the north of England may help to throw some light on the matter. The hives of the Rev. E. Brierley of Great Broughton, Cumberland, are upon the bar-and-frame principle, so that any given comb can be removed at will. The glass super of No. 8 hive was found deserted of bees on July 7th, and the super and the cover of the stock hive underneath were removed, when it was seen that the hive was in the reverse of a prosperous state. A minute examination of every comb showed that there was no trace of eggs, grubs, or sealed brood, and it was clear that the hive was going down. A comb full of eggs only was at once selected from another stock, marked, and dropped into hive No. 8. The queen bee happened to be on the selected frame, whence she was removed and the remaining bees brushed off. The comb was new, but all the space in the frame was not filled with comb. On July 14th the cover was again raised, when a great difference was observable in the manner of the bees, and on taking out the marked comb the experimenter was rewarded by finding five of the so-well-known queen cells, three of which were already sealed. A portion of the empty space in the frame had been filled with drone comb.—B.

## OUR LETTER BOX.

BRAMLEY SHOW (*J. North and Others*).—No more need be said upon the subject of the rough handling of the Rabbits. The conduct was very wrong, but we need say no more than that the names of the delinquents surprise us.

TUMOUR IN HEN'S BREAST (*A Constant Reader*).—Open it with a sharp knife or pointed scissors, squeeze out the contents, cover the opening with diacylon plaster, and leave the cure to Nature. A bruise may have caused it. Your half-round perches are good, but no perches should be more than 2 or 3 feet from the floor, and this should be covered with sand 2 inches deep.

HOUDANS UNHEALTHY (*E. J. P.*).—We rather hesitate how to advise you. We look with affection on Houdans wherever they can have a good run on their owner's property. We cannot explain it, but we know it is a fact, that if in their run there are ten square yards out of a hundred acres that do not belong to their legitimate owner, that is where they will, if possible, lay their eggs. Our next complaint against them is, that in confinement they eat each other's feathers—truly a foolish habit. Jingle lived a long time on a coat and a pair of boots (had polley to pawn the pair), he should have pawned one, and accounted for his un-brootal appearance by saying the other was gone round the corner to have "a brad or two put in." In like manner we read in shipwrecks of a boat's crew nourished by a pair of Wellingtons. This, however, is sheer necessity. Your fowls have nothing of the sort. Judging from the bill of fare you send, it is not for want they eat their feathers. Nevertheless, we would suggest a change. Let the whole grain be given at midday, and the ground oats in the evening. We do not find they are at all particular as to soil. We find them good layers, hardy birds, and excellent for the table. We have scores of them; their feet are not swollen. What is the flooring of their house? It is likely you may there find the cause of the swelling. If the floor is anything but earth, that is the cause. We use no patent foods, we would not if they were given to us. So far as we can follow "Nature's cookery book," "what to eat, drink, and avoid to reach a healthy old age." We seldom fail, no artificial heat, no spiced foods, no laying powders, but good honest wholesome food. You will be troubled to find a better fowl than the dark Brahms, but the Houdan is a good one.

**POULTRY MORTALITY (R. H. J.).**—It is safe to say that weather has much to answer for where deaths are frequent in the poultry-yard. The total absence of sun, cold nights, and continued rains have done much to interfere with the comfort and well-doing of poultry, both chickens and adults. The cold wet surface of the earth, the lack of heat and dust, the impossibility of scratching in 3 inches of mud, and the necessity of running every half-hour of the day to avoid a shower that converts an inequality of the surface into a pool, is a tax on chickens. They cannot grow, and where they do not grow they are not in health. The same causes operate against the health of the adults. We presume the different sorts of poultry have different roosting places. It is most difficult to keep health in a house where Turkeys, Guinea Fowls, and Ducks inhabit with them. Fowls should lodge by themselves. We do not think your feeding as good as it might be. We dislike rice and cabbage. We also infinitely prefer any natural food to all the prepared and patent foods. With good corn, ground oats, barleymeal, lettuce leaves, and kitchen scraps or table sweepings, you have all that is necessary for food, and if they have in addition a good grass run they have all that is necessary for health. Much experience has taught us that great variations of temperature and a wet season induce disease of the liver. The appearances you mention are much more common in Rabbits than in fowls. In the latter it is found in old birds, and in those that have been fed on stimulating food to make them lay, than in any others. Dropsy is a very common disorder in these cases, and a hen unnaturally treated with stimulants seldom lives more than two years. Those that have been naturally treated and have lived and laid six or seven years are almost always found to have more or less of dropsy in their systems. We have taken half a pint of water out of one hen. We advise you to let the fowls roost by themselves. To feed in the morning with ground oats slaked with water, midday with whole corn and scraps, evening with ground oats slaked with water, to supply lettuce when you have it, is good and healthy feeding, and properly managed as cheap as anything you can buy.

**LOBBY BRAHMAS (W. W.).**—They should be white with the exception of tails, hocks, and thighs—these should be black. They should have pen-combs, well-feathered legs, no vulture hocks. They should have yellow legs. They cannot be too large if they are well shaped. Clean legs, mixed plumage, dark legs and loose combs, are all disqualifications.

**COLOUR OF YOLKS—GAYES (L. R. L., jun.).**—As a rule the yolks of pullets' eggs are paler than those of hens. It is also said those laid in cold weather show less colour than those laid when it is warmer. We believe the remedy will be to keep the hens till they are older. There is only one cure for gapes, and that is to give camphor. It may be given in their water if sufficient is put in to make it into camphor jelly, or in urgent cases a pill the size of a garden pea may be given. Bran is worthless poultry feeding. Give your fowls soft food, barleymeal or ground oats slaked in the morning, the same in the evening. At midday you may give whole corn and household scraps; green meat whenever you can, especially lettuce, and sods of grass.

**COCHIN-CHINA COCK DROPPING (W. O. S. S.).**—There is no consumptive disease among fowls, but there is "atrophy." In such cases there is no discharge from the nostrils, no short cough, no rattling in the throat. The bird diminishes in size and weight daily, it shrivels up, the skin of the face is stretched on the bones, and the same may be said of the skin of the legs. The body is a skeleton covered with a dried, red, and parished skin. We have known but one instance of recovery from it. In that case a Spanish hen took a fresh lease after drinking three bottles of old port and eating French rolls by the dozen. Dissection generally shows the lungs adhere to the bones and are dried up.

**CHICKENS JUST HATCHED (W. E. S.).**—When our chickens are hatched we leave them under the hen for eighteen hours in cold weather, and nearly as long in warm. We then feed the hen sumptuously, and put her in a spot entirely sheltered, with the chickens under her. The food is bread and beer, bread and milk, and chopped eggs. They soon take to it, and never die of cold. Your chickens die of gapes, and you might as well give nothing as cayenne. The only cure is camphor; either a small piece given as a pill, or water strongly impregnated with it given to drink. The hen would not allow the chick to roost under her. We should observe we never allow the hens their liberty till they begin to lay again.

**BRAHMAS (W. O. M.).**—We should advise you to renew one-third of your fowls every year. The adults will continue good layers for three years. The purchased pullets will be the winter egg-providers. Although a Brahma is not worn out at three years old, yet there are always some that from accident or otherwise are neither pleasant or profitable objects. Such should go to the kitchen to make room for the chickens every year. Your feeding will be improved, and also be more economical, if you give ground food slaked with water morning and evening, and scraps or Indian corn mid-day.

**PUTTING ON SUPERS—OBTAINING CLEAN COMBS (F. J.).**—You may put supers on hives before they are full, and let the bees use them when they need them. For several reasons we do not put supers on till the bees require more room, till there is a likelihood of the bees entering them at once and commencing work. Properly made hives are not usually cemented to their boards during the summer months, and even if they were you would find that an examination of your hives now and again would not interfere with their prosperity. Every bee-farmer should know the internal condition of his hives, and he cannot know this without examination carefully made. You ask "if there is any way of obtaining clean comb for fixing in supers except by using the American slinger." We are not aware that the slinger ever has been or can be used for this purpose. Clean white combs filled with honey are too brittle and easily broken for the machine. Better place such combs in supers unbroken, even with the honey in them, than have them bruised and broken by the slinger. Hives that have been filled recently with combs supply us with an abundance of pure white virgin comb for supers, and we know of no other source of supply than hives of young combs.

**BULLFINCH SHOUT OF FRATERNITY (Lady Sybille).**—You may not expect to find the feathers growing upon the Bullfinch's head until it undergoes a moult, which will shortly take place, when Nature will provide the bird with the clothing necessary for the coming cold season. Care birds are fast falling into moult, and no doubt your Bullfinch will likewise. We will not recommend just now any external application, for it will only tend to render the respiratory organ more difficult. We are not so much surprised at the deficiency of the feathers about the head as in the wings and tail, and we think upon close examination you may perceive that there are the old stamps still remaining in, which may account for the non-appearance of feathers. According to the order of Nature, when a bird loses a feather another one should supply its place, more especially in the wings and tail, falling which a bird's system cannot be in a thoroughly healthy state. In old birds the feathers are longer shooting forth than in young birds. Happy bird! It is provided

with all the necessary creature comforts for sustaining and prolonging life. In the way of diet we are sure nothing more need be supplied. If you have been in the habit of feeding the bird freely upon lamb's tongues, partly discontinued it, for the flesh would tend more than any other diet to bring about a deficiency of feathers, and produce a heated system. In the way of medicine you may administer one drop of castor oil. Carefully and tenderly open the bird's bill and deposit upon the back part of its tongue the oil. During the moulting sickness keep the bird free from draught. Discontinue the salfron, and in its place supply a rusty nail in the water. Let Master Bullfinch continue to enjoy his morning's ablution.

**CHERRY WINE (Mrs. Porter).**—To make five pints of this wine take 15 lbs. of cherries, 2 lbs. of currants, and bruise them together; mix with them two-thirds of the kernels, and put the whole (the cherries, currants, and kernels) into a barrel, with a quarter of a pound of sugar to every pint of juice. The barrel must be quite full. Cover the barrel with vine leaves, with sand above them, and let it stand till it has done working, which will be in about three weeks; then stop it with a bung, and in two months' time it may be bottled.

**SHAKES PECKING (St. M.).**—It is picked precisely in the same way as cantharides. The white fungus which occurs on the surface of pickles is prevented by pouring melted suet on the surface of the vinegar in the jar; a film of melted suet the sixteenth-of-an-inch thick is sufficient.

## METEOROLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 38' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.				Rain.	
1875.	Barom. at Sea and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Shade at 9 A.M.	Shade Tem- perature.		Radiation Temperature.		
July.		Dry.	Wet.			Max.	Min.	In sun.		On grass.
We. 31	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	0.25	
Th. 32	30.923	53.1	54.8	S.W.	59.1	54.1	54.9	52.1	0.25	
Fri. 33	30.795	53.3	57.9	N.W.	59.0	71.6	53.3	51.9	0.087	
Sat. 34	30.634	53.6	58.0	S.W.	59.3	68.3	53.6	51.9	0.158	
Sun. 35	30.665	53.7	59.7	S.W.	59.5	64.6	54.5	52.6	—	
Sat. 36	30.918	55.1	57.1	S.W.	59.0	69.0	57.0	51.3	—	
Mo. 37	30.808	56.6	58.5	W.	58.3	73.5	54.3	56.1	—	
Tu. 37	30.930	56.5	55.3	S.E.	59.6	71.5	55.9	54.9	—	
Means	30.947	61.1	56.6		59.9	70.0	57.7	59.0	0.634	

## REMARKS.

31st.—Rather dull morning, shower in the forepart of the day, finer towards the afternoon, and bright sunset.

32nd.—Showery in the morning, fine afternoon, but looking very stormy after 7 A.M., and very early dark.

33rd.—Showery, but cleared at 10 A.M., and continued fine till 4 P.M., except a sprinkle about 1 P.M.

34th.—Rain at 8 A.M., fine by 9 A.M., and a very pleasant day, though looking stormy occasionally.

35th.—Slight showers at times, but a very pleasant day on the whole; cold in the evening.

36th.—Beautiful day throughout.

37th.—Another very fine day, and without any appearance of rain or storm.

A dry fine week, with steadily rising barometer; temperature in early morning of 35th quite chilly.—G. J. SYMONS.

## COVENT GARDEN MARKET.—JULY 28.

THE improvement in the weather has somewhat raised our hopes for the late portion of the crops of soft fruit that may yet remain. The greater portion, however, is irretrievably gone, and large quantities of Latanas and other common Pears come to hand all scored as though done with a knife. Importations have largely increased since the bad weather set in, consisting chiefly of Apricots, Greengages, and Pears. In addition to the West Indian Pines some have recently come over again from St. Michael's.

## FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....	10	6	Malberries.....	10	0 to 0 0
Apricots.....	10	6	Nectarines.....	10	0 to 0 0
Cherries.....	10	6	Oranges.....	100	0 12 0
Chestnuts.....	10	6	Peaches.....	10	0 16 0
Currants.....	10	6	Pears, kitchen.....	10	0 0 0
Black.....	10	6	dessert.....	10	0 0 0
Figs.....	10	6	Pine Apples.....	10	0 0 0
Elberts.....	10	6	Plums.....	10	0 0 0
Cobs.....	10	6	Quinces.....	10	0 0 0
Gooseberries.....	10	6	Raspberries.....	10	0 0 0
Grapes, hothouse.....	10	6	Strawberries.....	10	0 1 0
Lemons.....	100	0 12 0	Walnuts.....	10	0 12 0
Melons.....	10	6	ditto.....	100	1 0 1 0

## VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....	10	0 to 0 0	Leeks.....	10	0 to 0 0
Asparagus.....	100	0 0 0	Lettuce.....	10	0 0 0
French.....	10	0 0 0	Mushrooms.....	10	0 1 0
Beans, Kidney.....	10	0 0 0	Mustard & Cress.....	10	0 0 0
Broad.....	10	0 0 0	Onions.....	10	0 0 0
Beet, Red.....	10	0 0 0	pickling.....	10	0 0 0
Broccoli.....	10	0 0 0	Parsley.....	10	0 0 0
Brussels Sprouts.....	10	0 0 0	Parsnips.....	10	0 0 0
Cabbages.....	10	0 0 0	Peas.....	10	0 1 0
Carrots.....	10	0 0 0	Potatoes.....	10	0 4 0
Cauliflowers.....	100	0 0 0	Kidney.....	10	0 0 0
Cauliflower.....	10	0 0 0	Radishes.....	10	0 1 0
Celery.....	10	0 0 0	Rhubarb.....	10	0 0 0
Coleworts.....	10	0 0 0	Salsify.....	10	0 0 0
Courgettes.....	10	0 0 0	Scorzonera.....	10	0 0 0
Cress.....	10	0 0 0	Seakale.....	10	0 0 0
Endive.....	10	0 0 0	Shallots.....	10	0 0 0
Fennel.....	10	0 0 0	Sprouts.....	10	0 0 0
Garlic.....	10	0 0 0	Tomatoes.....	10	0 0 0
Herbs.....	10	0 0 0	Turnips.....	10	0 1 0
Horseradish.....	10	0 0 0	Vegetable Marrows.....	10	0 4 0

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	AUGUST 5—11, 1875.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.							
5	Tu	Newport (Monmouthshire) Show.	74.5	50.3	62.7	m. h.	m. h.	m. h.	m. h.	Days.	m. a.	217
6	F	Duke of Edinburgh Born, 1844.	75.2	50.8	63.0	81 af 4	40 af 7	7 af 9	14 af 9	4	5 44	218
7	S	Olley, Rosedale, and Littleover Shows.	74.6	50.9	62.7	84 4	37 7	21 10	25 9	5	5 37	219
8	Sun	11 SUNDAY AFTER TRINITY.	74.5	49.4	61.9	86 4	35 7	after.	49 9	7	5 28	220
9	M		74.9	49.6	62.3	88 4	38 7	2 2	7 10	8	5 15	221
10	Tu	Royal Botanic Society's Anniversary Meeting.	75.1	51.9	63.5	89 4	31 7	16 3	30 10	9	5 7	222
11	W		75.8	50.7	63.2	41 4	39 7	23 4	8 11	10	4 58	223

From observations taken near London during forty-three years, the average day temperature of the week is 74.6°; and its night temperature 51.8°.

## THOUGHTS SUGGESTED BY THE GREAT SHOW AT SOUTH KENSINGTON.



**F**IRST of all I think it a pity that a show so grand was not seen by all the flower and fruit-loving inhabitants of Britain. I think also that had the weather been fine that the attendance would not have been satisfactory. The public have so often been summoned to see great shows and have been disappointed, that nothing less than an actual grand display could reassure them that the hands of the British horticulturist had not lost their cunning. This proof is provided, and the next great show—weather being favourable—will command public patronage; that the late Show could do so was not reasonably to be expected.

But why was the Show so truly great, and how are similar displays to be provided in the future? The natural reply to the first part of the question is, Because horticulturists have confidence in the present Council, and because the leading nurserymen vied with each other in friendly rivalry in bringing forward the richest and the best of their treasures. All honour to them for that, but in my opinion it only half answers the question—to complete it we must remember that they had full freedom. They were tied to neither numbers nor classes of plants. The fullest latitude was afforded them to set off to the best advantage their many plants, which were interesting, not from size and symmetry alone, but for rarity and intrinsic beauty.

Now, it is clear that if the Exhibition had been arranged on the orthodox plan of classes, hundreds of plants exhibited would not have been seen, and some which were would not have been nearly so imposing as was the case on the memorable 21st of July. No class could be framed to have embraced, I may almost say, hundreds of plants which the Messrs. Veitch exhibited. The noble tree Ferns of Mr. Williams and stately Palms of Mr. Bull could not realise the same good effect if grouped in rigid formality. The Ivies from Mr. Turner never looked so well before as under the free arrangement and association with other plants. Messrs. Wills, Lee, Rollisson, Aldous, Henderson, Carter & Co., Outbush, &c., exhibited to infinitely greater advantage in their own way than they could have done in any way carved out for them by others; and the firms, the Society, and the public were alike the gainers. Can it be wise to ignore or to forget this?

But are classes to be abolished? By no means, but they should be supplemented. Many are the plants which will not fit in a class of a restricted number. The mere size of plant required is fatal to their appearance, yet it is beyond question that medium-sized and even small plants are not only beautiful, but to a majority of visitors are as interesting as the large specimens. For these specimens there must be classes, but after these are filled sufficient plants are left for the arrangement of groups which would form a splendid feature in any ex-

hibition, and, besides, would convey instructive hints as to the best mode of arrangement.

The occupation of space in the most effective manner has been well demonstrated at many local shows. For instance, had the collections been removed from the tent at Richmond the Show would have been shorn of its glory; and suppose the plants on the 21st had been selected and broken up into groups of sixes, twelves, and twenties, where would the Exhibition have been? It would have been good, no doubt, but not half as good as was the display which was founded on freedom of taste.

Is it not reasonable that the instruction on this point which the late Show has afforded should be utilised? Would it not be wise to apportion a given amount of space, and leave the exhibitors to occupy it as they choose with large plants or small, few plants or many? If it would be wise to do so, would it not be wise also to do it well—that is, to offer large prizes, and so place the space classes at the least on a level with the specimen classes? Surely 100 square yards of space ornamentally occupied by rare and valuable plants is as worthy of reward as are twelve specimen plants, good as they may be. Would not the adoption of a system of making space and liberty the main governing principles instead of mere number of plants, do something to break-up or, at any rate, modify the stereotyped sameness of our fashionable exhibitions? Would it not be possible also to apportion the space so that not only the owners of large plants and large structures could contribute creditable collections, but which would open the door to those of smaller means who have now little or no chance of letting the public see how good, if small, their plants are; and if that could be done, would it not be worth the doing?

This great Show has proved that at least half a dozen exhibitors can each occupy 100 square yards of space (Messrs. Veitch and Mr. Williams probably occupied together nearly 400 yards); is that not a sufficient basis on which to found serious inquiry? An equal number could occupy half that amount of superficial area, and a further class of exhibitors could worthily fill 20 square yards. Here is the basis of a show as great as the last one proved itself to be. Add to this a judicious selection of classes for specimen plants, and are not the means provided for a larger show than has yet been seen?—a show great and diversified, comprehensive and inviting the greatest number of cultivators, and producing a display suited for various tastes and eminently instructive in the different phases of arrangement which it would call forth.

In any such arrangement it seems to be necessary to bear in mind the advisability of substantial prizes or awards of honours, and an understanding that the same exhibitor could not secure prizes in the different space sections. But on this point there is too much honour in the trade to prevent the fat kine from essaying the swallowing of the lean. Some plan is required whereby all can have a chance to compete honourably to themselves, and the united efforts of the greatest numbers of exhibitors might culminate in displays which for extent



and variety of interest have never been surpassed in this or any other country.

Was not the richly-embellished marquee at South Kensington deficient in one feature—hanging baskets? For these it is admirably adapted. Surely they are worthy of encouragement, and certainly they would have greatly contributed to the effect of the Exhibition.—W.

### ABOUT PEARS.

I AM pleased to see that the idea of obtaining local information about Pears appears necessary and practicable to Mr. Luckhurst and others who have written and talked to me on the subject. If anything is to be done this season it must be done quickly. I would therefore ask all who have any suggestions to make to be kind enough to make them at once, or their help and perhaps the season may be lost; and for once, with the editors' permission, as I am anxious that all who can contribute should do so, I invite anyone who has suggestions to make on this particular subject, and objects to have his letter published, to communicate with me privately. Of course I cannot undertake to answer all such letters separately and privately, but I would gladly make use of any practical suggestions they might contain to further the object I have at heart. I would, of course, much rather all communications were sent to the editors for publication, as that would tend to awaken an interest in the subject; but I know from experience that there are people abounding with stores of knowledge, and yet from timidity or inability to value that knowledge cannot be persuaded to publish it for the good of others. Those who have nothing to say are generally fast enough in saying that nothing, but now and then by accident we come across a veritable living cyclopædia, and wonder how it is that he should have so long remained a closed book.

I have here a letter from a gentleman in Yorkshire on the above subject, who is evidently a great enthusiast and could communicate valuable information to your readers, and as the letter is so much to the point I take the liberty to extract the following. He says, "I shall have great pleasure in giving my experience about Pears. I have cultivated here about sixty varieties for many years, and more than a hundred varieties have been tested here. I greatly approve of your tabulated form, and would suggest two other columns, one headed Bearing Properties, the other Weight of Fruit. We all have letter-weighing machines and can easily weigh our best fruit of each variety, and then it would be seen what success we could arrive at in each case. Nearly all my Pear trees—more than eighty in number—are on the Quince, and the greater portion of these are trained upright and are bearing fruit. Peaches, Plums, Cherries, Pears, and Apples, some of each sort, are trained upright, at first as an experiment, but the experiment has proved to be so successful that henceforth I shall train every fruit tree upright. I expect every yard in length of a 12-foot wall should yield, when cultivated with Pears or Peaches, annually fifty fruits. Several of my trees do more than this year by year." I am afraid this gentleman amateur in a cold northern county would put to shame many of us professed gardeners who are more favourably situated.

The difference of opinion between Mr. Luckhurst and myself as to the merits of the two Pears named at page 70 merely proves more forcibly the necessity for local information. If he and others of equal competency will fill up the proposed forms carefully for three successive seasons, from their own experience at the time, I shall attach the same importance to their observations in their several localities as to my own. Of course nothing must be done from hearsay or memory, for, as Mr. Luckhurst truly says, the memory is treacherous and cannot be depended on for this sort of work; it has great difficulty in driving out old notions, which by the aid of careful chronicling ought to have been exploded long ago. When I wrote of weeding the returns of eccentricities of taste I was thinking more of the general abstracts to be made from the local returns than of the returns themselves.

I think it is very possible that among the Pears sent out within the last twenty years, some of superior merit will be found to do well over a wide tract of country, and which are at present comparatively unknown. Probably the local returns will have to stand on their own merits. When the general abstracts are made I neither propose to decide by individual taste nor by weight of numbers, but by something between the two. I think the return made by a man of known ability, and who is acknowledged to have a good opportunity of forming

an opinion, is sure to carry more weight with it than that of one who is not known to have so good a chance of obtaining information. But let it be understood that all I have said on the subject so far are merely crude suggestions.

I should be pleased to see Pear-growing become popular among our cottagers; it would be very interesting to them, and, if well done, highly remunerative. In this neighbourhood there are not many people who ever taste a good Pear, but it is extremely difficult to advise them how to commence cultivation.

Morello Cherries are becoming popular, a good-sized tree often paying a year's rent; but I can assure our friend Mr. Abbey (see page 65) the said trees are neither spurred nor have their shoots measured by inches. If the growths are a yard long they are laid in their full length and bear fruit throughout. Disbudding and pinching a few shoots in spring, and cutting out exhausted shoots after the fruit is gathered, is all the pruning received or required. When the idea is to economise labour and to have a fair return for the same, trees should be trained in the way their natural habit suggests; and it is just as wide of the mark to spur Morellos and Black Currants as it would be to train an Oak tree to a balloon trellis.

I would strongly recommend the *sécateur* (or French pruning shears) for summer-pruning, and indeed for pruning generally, excepting Peaches. It makes a cut almost as clean as the sharpest knife, instead of something between a cut and a squeeze as made by the common pruning shears, and the amount of work one can accomplish in a short time is astonishing.—WM. TAYLOR, *Longleat*.

### ROSES FROM CUTTINGS.

"PHILANTHUS," in his suggestive and seasonable remarks, page 89, opines that July is a far better time to put in cuttings of Roses than in November or October. I am precisely of the same opinion, having years ago proved, in the first instance accidentally, that cuttings inserted in the summer months take root with more certainty and celerity than if put in at any other period of the year.

It is now many years ago when budding Roses that, instead of throwing away the shoots from which I had taken the few buds required, I roughly shaped them into cuttings and stuck them into the ground at the base of the Briar stocks. It was a mere mechanical act without any serious thought that the cuttings would strike root; but they did so. Hardly one failed.

Since then I have adopted the plan systematically, and have never failed to strike as many Roses as I required by inserting the cuttings in July or August. The striking under the Briers suggested that some shade was necessary in this summer propagation of Roses. Subsequent practice has proved this to be so, for when the cuttings have been inserted in an open place, and a period of drought has followed, many of them failed to grow, but when planted in a north border failure has been very rare.

Cuttings of half, or rather more than half, ripened shoots 6 inches in length with all the foliage removed except the top pair of leaves, firmly planted up to these leaves, are almost certain to grow if put in at this season of the year. The main point to aim at is to keep the foliage fresh as long as possible, and to this end a shaded place and occasional sprinklings of water should be afforded.

Another point to attend to is that the cuttings cannot be too quickly made and put in, for if allowed to lie about until the bark becomes shrivelled they will not prosper.

Most varieties of Roses thrive well on their own roots, and some of them better than on stocks. Baronne Prevost on its own roots is much finer and sweeter than when worked, and so is the old Provence Cabbage Rose. Indeed, I have fancied that many Roses are sweeter when grown from cuttings than when worked on the Briar—certainly such is the case with those I have named. I have had blooms of John Hopper from cuttings growing at the base of the Briar invariably superior to those elevated above them and growing from the Briar stock; and the same remark applies to the lovely old Rose *Coupe d'Hébé*.

If stocks affect the quality of fruits, why should they not exert the same influence on flowers? As a general rule I believe Roses are sweeter when on their own roots than they are on any stock, and some of them are finer and most of them more permanent.

The present is a very good time to put in the cuttings, and



If firm wood is selected and the work quickly done; if 5 inches of the cutting are put firmly in the ground and 1 inch left out; if shade is afforded and water given occasionally, not one cutting in twenty will fail to grow.—A SURREY GARDENER.

### ROYAL ASCOT GRAPE.

SMALL BUNCHES VERSUS LARGE.

THIS Grape is doing very well with me this year—so well, in fact, that I am desirous of saying a word or two in its favour. It is a very distinct variety; the berries are large, elongated like a Muscat, invariably colouring well, of a deep glossy black, the singular lustre being visible through the bloom, imparting a brilliancy to the appearance of the ripe fruit that is very attractive. The bunches have none of the tapering symmetry peculiar to most other black Grapes, but consist of two parts, which may be compared to the shoulders of a large bunch of Black Hamburgh minus the remainder of the bunch, the berries being disposed in the form of clusters rather than of bunches. Although these clusters are hardly large enough to entitle them to be placed singly upon the exhibition table, yet they are sufficiently so for all practical purposes, the fruit itself being very large and of a rich, crisp, piquant flavour. Its free-bearing and equally excellent setting properties are too well known to need any commendation at my hands. The rage for big bunches has probably caused it to fall somewhat into neglect; but to those who only require a first-class Grape for table I strongly recommend it as a robust and sterling sort, which under fair treatment may always be depended upon for affording a supply of fine fruit as rich in appearance as in quality.

From the great utility of this Grape arises the thought, Are we right in regarding as best those kinds which produce the largest bunches? The experience gained in supplying the requirements of a large establishment induces me to reply, Decidedly not. It is true enough that large bunches of Grapes may obtain an extra meed of admiration when first cut as well as when suspended on the Vines, but it must never be forgotten that all Grapes are grown to be eaten, and it is upon the berries that a final and critical judgment is passed. Large bunches are therefore most suitable for exhibition and for grand occasions, such as large parties, but for everyday use nice little "lumpy" bunches of from 1 to 2 lbs. weight are much more useful. Being small the bunches are sooner used, a fresh supply is required daily, and the neat trim appearance of the Grape dish is certainly a pleasanter sight than when it contains the wreck of a huge bunch or two battered, bloomless, and absolutely greasy-looking. I am aware that this statement may appear antagonistic to my advocacy of a house of Gros Guillaume a short time ago, but in reality it is not so, such "fancy" houses being only suitable for extensive gardens containing several vineries, each of which ought, as a general rule, to contain only one kind of Grape, an early house or two forming the exception.

It is a fact well known to most Grape-growers that many sorts of Grapes may be made to produce either large or small bunches at will, and yet a decided preference is usually shown for the production of bunches of medium size. Small bunches result almost invariably from a rigid adherence to close pruning, and, other things being equal, there is an increase in size of bunch up to a certain point that is very much in proportion to the length of young wood retained upon the spurs. In pruning for large bunches attention is given to the selection of a full plump bud, especial care being taken that it is not a double bud, as it is most vexatious to see the supposed fine bud putting forth a couple of weakly shoots instead of the expected strong one. Another point of importance is to avoid overcrowding; a just balance must be maintained. Large bunches are borne on stout branches clothed with huge dark green leaves requiring ample space for their full and healthy development, while smaller bunches are produced on wood of less vigour, and consequently requiring less space.—EDWARD LUCKHURST.

### EARLY BEATRICE PEACH—ANGOUMOIS APRICOT.

We have gathered Early Beatrice Peach from a south wall on July 22nd, and kept it till the 26th, and we found the keeping to improve the flavour. We gathered Angoumois Hâtive Apricot from a west wall on July 26th quite ripe. The flesh is tender and juicy, with a rich piquant flavour.

It is quite a fortnight earlier than Moorpark, which on the same wall is only beginning to show a little pale colour. The fruit is of medium size and highly coloured. We consider it an acquisition.—J. C. LEE, *Hammersmith*.

### ROSES FOR A LIMITED COLLECTION.

I SEND you a list of Roses, not for palatial residences, but for those who with limited incomes admire the queen of flowers.

*Hybrid Perpetuals*.—Fisher Holmes, La France, Sénateur Vaisse, Madame Victor Verdier, Exposition de Brie, Charles Lefebvre, Maurice Bernardin, Madame la Baronne de Rothschild, Monsieur Noman, Camille Bernardin, Souvenir de la Malmaison, Bessie Johnson, John Hopper, Annie Laxton, Marquise de Castellane, Madame Parriaux, Alfred Colomb, Etienne Levet, Louise Van Houtte, Princess Mary of Cambridge, Prince Camille de Rohan. Madame Clémence Joigneaux as a pot Rose is superb, but shy out of doors.

*Tea*.—Gloire de Dijon, Madame de St. Joseph, Catherine Mermet, Madame Willermoz, Belle Lyonnaise (wall).

*Noisettes*.—Triomphe de Rennes, Rêve d'Or (wall), Lamarque, Céline Forestier, Maréchal Niel (shy). The above have bloomed well and are hardy. Any humble cottager can grow the above.—Rus, *Reading*.

### FRUIT TREES FOR NORTH WALLS.

It is generally considered that few kinds of fruit trees are suited for walls having a north aspect. The Morello Cherry is in most instances considered the best, and there is no gainsaying its free growth and bearing in such a position; but the chief value of the fruit is for culinary purposes, though some esteem them for dessert after hanging a time. There are those, however, who would be glad to put a north-aspected wall to a better use, or what to them is a more desirable one, than a glut of Morello Cherries. The May Duke, which I have in three examples on a north wall, bear quite as abundantly as the ten trees of the Morello on the same aspect. The May Duke upon the north aspect succeeds those on a warmer aspect, and they keep in good condition a long time. Elton bears but sparingly, and the White Heart is rather more prolific, but neither bear so freely as the Dukes and Morello. A Jargonelle Pear bears as well upon this as upon a more favourable aspect; and Pond's Seedling Plum, though it grows freely, cannot be said to be profitably prolific. Red Currants, also Black and White, do remarkably well on a north aspect, and if well netted they keep sound until late in the season.

There are no doubt other kinds of fruit that would do satisfactorily against a north wall, especially many kinds of Pears, as I have seen several kinds trained over the top of a wall, and down its north side, bearing as large, though not so highly coloured, fruit upon the branches on the northern as the sunny side of the wall, and keeping longer, ripening off very juicy and melting, with flavour surpassing that produced on the southern side, the fruit of which being sometimes hard and woody, with a very poor aroma, being devoid of juice, and anything but melting. Apples I have no experience of, and of Plums have only seen the Winesap producing satisfactorily. Gooseberries, of course, answer well, and keep very late.

The subject appears to me a suggestive one. Many Pears in the south are hard and do not ripen which in the north are excellent, and it is likely the kinds found to be woody, mealy, or insipid, would, if grown against a north wall, be melting and good. One thing is certain, a north wall is the best retarder and prolonger of fruits which in a sunny position do not endure long in season from over-ripeness, and the fact we want to know is what kinds of fruit a north aspect is adapted for other than the Morello Cherry?—G. ABBEY.

### POTATO CULTURE.

AFTER perusing works on the above published from the office of this Journal, I have been induced, amongst other points, to try the effect of earthing and non-earthing-up during growth. Growing a small quantity of Kidneys on a sandy loam manured in the autumn, I must say, so far as I have tried them, quantity is in favour of the non-earthing; but the question naturally arises, Why should this be so?

I conclude all rain falling is more liable to find its way into the trench caused by earthing-up, and thus the roots do not, taking the season through, receive a regular supply of

moisture as in the other method. But, again, as the best Potato districts in England or Scotland are not soils of a retentive character, why is the ridge system and earthing-up so generally followed, when on the flat with winter manuring can be found to yield in garden practice much better results? Since the disease is causing much discussion in your columns just now, differences in cultivation may also be advantageously ventilated, as tending to reduce or mitigate this evil.—**AGRICOLA.**

### CLOVE CARNATIONS FOR TOWN GARDENS.

DELIGHTFUL old flowers are Clove Carnations. As garden flowers they rank next in beauty, and sweetness, and usefulness to the Rose. We used to see them everywhere, but we now only meet with them occasionally in isolated clumps in mixed borders. Still, their cultivation is rapidly increasing. Their inherent claims will not let them be abandoned.

We used to be familiar with huge beds of these attractive flowers, and such beds are again to be found in some of our best and greatest gardens. That is the way to grow them. In large masses they are most striking.

I note them now to say that they will not only flourish in the pure air of the country but will thrive in the murky atmosphere of the town, and overpower even the smoke by their penetrating fragrance. In the gardens of the Middle Temple in the city of London may have been seen for the past month rich masses of these flowers, and by their side the Geraniums show to great disadvantage, as possessing neither the richness, the massiveness, nor the grace of the Cloves. Even when out of bloom these beds are attractive by their neatness and the pleasing hue of their foliage.

I note them at the present time also because it is the season for increasing the stock. Layering is the best and safest mode of increase, but it is well to know that, as hinted by "PHILANTHUS," they will strike readily by slips inserted in a shaded place at the present time. Whichever mode of increase is adopted there should be no delay, or blooming plants will not be provided for next year's display.

In striking the cuttings half an inch of sand or fine grit should be spread over the surface of the ground, so that when inserting them a portion will be carried down with the dibber and be settled firmly round the cuttings. These should be taken off with a heel, and have all the lower foliage trimmed away and be put in deeply, or, if very long, in a slanting position. If 6 or 8 inches of the slips are beneath the ground all the better. That is the plan which is adopted in cottagers' gardens where for generations the stock has been perpetuated.

Layering is preferable, but that implies established plants to begin with, and, unfortunately, not in one garden in twenty is this the case.

The plants grow best in strong soil, and in such soil they are seldom injured by frost. In light soil, and especially where the winter's rains are heavy, the foliage is prone to spot and the plants to decay. In such places the safe plan is to winter them in pots plunged in cold frames, to be planted out in February or very early in March. In every garden of this nature, and where means are provided, the plants are well worthy of this little protective care; but in most places no protection is needed, and in every garden in town and country they are worthy of a place. As garden plants they are ever attractive, and as out flowers they are rivalled only by the Rose. My advice to all in town or country is to cultivate these fine old flowers, and commence by layering or inserting slips at the present time.—**A TOWN GARDENER.**

### CAULIFLOWERS AND WIREWORM.

A SHORT time ago I planted a bed of Cauliflowers, and another of Cabbages. The weather has been unusually favourable for them. They made rapid progress, and I was consequently anticipating early and fine maturity; but "the best laid schemes of mice and men gang oft a-glee," and on looking at my plants one morning I was considerably chagrined to find them drooping—literally dying. I was at a loss to find a reason. Weather and all other accessories had been in their favour, and I had omitted nothing in their treatment, but there before me were the dying plants, and my visions of savoury dinners and pickled Cauliflowers seemed doomed to disappointment. In this dilemma I applied to a friend, who straightway went with me to the garden. He immediately pulled up one of the dying plants, and showed

me that wireworms were at work. Acting on his instructions I procured some lime, and gave the soil around each plant a drenching with lime water. The effect was soon apparent, for in a few hours both Cabbage and Cauliflowers regained their vitality, and are now apparently as vigorous as ever.

The facts as to the above case have suggested to me the reflection, Would a similar treatment have a like beneficial effect in the first stages of the new Potato disease? Happily we are here exempt from it, else would I myself have tried the experiment. Should you think the above worth publication, it may possibly induce some of your numerous readers to give it a trial. If successful, the next consideration would be as to mixing lime with the manure used in planting Potatoes. I know of many farmers who have done so with the best results, but I cannot go so far as to say that it will secure immunity or partial immunity from disease.

The weather in north Lancashire has been very fine this week, temperature 70° in the shade. Hot suns daily are fast ripening fruits, grain, &c., and our prospects are exceptionally good.—**BETA.**

### LORD NAPIER NECTARINE.

Among the many fruits raised by Mr. Rivers, one of the best is the Nectarine called Lord Napier. Its great size and beauty and its exquisitely delicious flavour combine to make it a fruit worthy of universal cultivation.

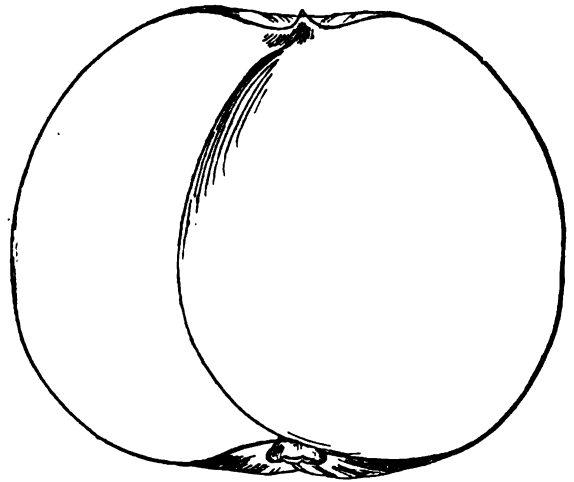


Fig. 14.—Lord Napier Nectarine.

For a Nectarine its size is unusual, being from 2½ inches to 3 inches in diameter. It is round, sometimes inclining to ovate, and depressed at the crown, in the centre of which is a small sharp-pointed nipple, from which issues a well-defined suture, which diminishes as it approaches the base. Skin greenish-yellow, but changing to cream-coloured when fully ripened, mottled and streaked with deep blood red on the side next the sun; when fully exposed the parts are completely covered with a very dark crimson cheek. Flesh yellow and translucent, mottled with white patches, remarkably tender and melting, very juicy, and very richly flavoured; it separates very freely from the stone, and is perfectly without any stain of colour.

This delicious fruit was raised by Mr. Rivers from seed of Early Albert Peach, and it is the earliest of all Nectarines, ripening eight or ten days before Hunt's Tawny.

### OLLA PODRIDA—A CONTINENTAL TOUR.

I AM going to try to disarm criticism by heading this paper "Olla Podrida," a name borrowed from an old Spanish word meaning a dish compounded of different materials, something like our hodge-podge, as I fear I shall be somewhat discursive, and shall be guilty of what is an unpardonable offence in a paper, a deviation from my text.

After a very cold and backward spring, or, I might almost say, a prolonged winter, we went for a short trip into north Italy, passing through France by way of the Mont Cenis tunnel, and returning through Switzerland *via* Lucerne and

Bâle, crossing from Italy into Switzerland by the St. Gothard Pass, and I thought it might interest some of your readers if I sent you a few remarks on the different changes of vegetation, and also on some of the public gardens and other things which I saw.

The season seems to have been nearly as backward in France as with us. I do not think I ever remember a spring when the hedges were so late in vegetating as they were this year. There was hardly a vestige of green to be seen till the second week in April; but just as they were late in starting, so they made most rapid strides when once the spring set in. And in travelling through England I noticed there was comparatively very little difference between the north of Yorkshire and the south, as in the third week in April I went from Yorkshire into Dorsetshire, and in the middle of May through from Yorkshire into Kent, and in both cases I do not think there was more than a week or ten days' difference in the forwardness of the vegetation between the north and the south. This, perhaps, was more especially remarkable in May, as between the 5th and the 16th of May we had some very forcing weather, which brought all vegetation on together. I remember amongst other things watching the development of the flowers of a large Horse Chestnut tree. On Saturday, May 9th, there was not a single flower fully expanded, and on Friday, May 14th, there was not a single flower which was not fully open, even on the north side of the tree in the shade; but then our temperature had reached from 78° to 80° in the shade three days running, and one day it had been up to 70° at nine in the morning, and remained so till after eight o'clock at night. The change which took place in the hedges was much the same; so that, though they were so backward in April, our May blossom was out by the 15th of May, which is forward for this part of Yorkshire.

Why I make these remarks is, that on crossing into the Continent I found they were not much forwarder in France, till we arrived near to Paris, than in England, and certainly in the warmer parts of Kent the vegetation was quite as forward as in the first part of France we passed through. From inquiries, too, which I made from persons who had wintered at Mentone, Nice, Rome, Florence, Naples, and other places there seemed to be the same general complaint that the winter had been unusually severe and the spring very backward nearly all over the Continent. We only stayed two nights in Paris, and found gardeners just beginning to put out the half-hardy plants in the gardens there; in fact, as I had begun to bed-out my own garden in Yorkshire, and had just put out the greatest number of my Geraniums by the 22nd of May, I did not find them much forwarder at Paris than with us. On the 22nd we left Paris for Aix-les-Bains, where we remained over the Sunday, and it was interesting to watch the gradual change in the forwardness of the foliage and in the character of the vegetation. Taking, for instance, the *Acacia* as a test, which is much grown along the sides of the railways in France, it was only showing bud near Boulogne, and we saw none in bloom till we reached Paris, and before we arrived at Aix, or rather soon after passing Dijon, the flowers were all over. It was curious, however, on the Monday, when going through the Mont Cenis Pass, to watch the flowers gradually reappear as we went higher up the valleys, till at last, as we arrived nearer to Modane, the foliage was hardly developed.

The climate of Aix is very warm; it is protected from the west by a high range of hills, the Dent du Chat, and on the east and north by the range of Alps; in fact, after crossing the Valley of the Rhône, the Vines in the different valleys were much forwarder than about Dijon and Maçon, and the Burgundy country. Here, too, for the first time we saw Indian Corn as one of the crops. And here I may remark, that wherever we went the Vines this year were looking remarkably well, and the paysans were already congratulating themselves on the great promise of an abundant vintage. This was the same both in France and Italy; in fact, in Italy the value of the exchange of English gold into Italian paper money began to be materially influenced by the prospect of an abundant vintage, the exchange falling in about six weeks from 28 liras to 26.60 per English sovereign. At Aix we first saw the *Paulownia imperialis* and *Bignonia*s growing luxuriantly. The foliage of trees and shrubs was very luxuriant, the shrubs making a marked feature in the public gardens. Here, too, there were more flowers grown in the gardens than in most places that we visited; in short, as a general rule, I may remark here the extreme paucity of flowers in any of the public gardens in Italy. Nor do you see flowers in cottage

gardens or even in gentlemen's grounds in the same way we do in England; such a thing, too, as a well-kept lawn or grass plot is rarely to be seen. The excuse is generally made that in warm climates the grass grows too fast and requires too constant care, and that if dry weather comes on it burns up; but the fact is that the grass is left to grow for so long that it becomes brown and bare at the roots, and then when it is cut it cannot stand the sun.

French and Italian gardeners think that once a month is quite often enough to cut a lawn, and in some places, as at Bellagio, in front of the *Hôtel Grande Bretagne*, a grand new garden is laid-out with beds edged with terra cotta tiles and a fountain, while the grass plots are nothing but weeds, as Plantains and Sow Thistles, Shepherd's Purse, *et id genus omne*, allowed to grow at their own will. The effect in this particular case I allude to was most ridiculous, especially when the flower beds were filled with half-hardy annuals, which in the beginning of June required a strong magnifying glass to see; but there, too, the shrubs were the redeeming feature. However, I am digressing, but I remarked at Aix that there were more flowers and better shrubs than at most places, but lamentably injured by want of sufficient care and attention to the surroundings. The truth is, in these favourable climates gardeners seem to trust to Nature.

It was very pleasant, however, to meet with some old friends in the shape of Roses in the gardens of the inns, and there were very good specimens of our old favourites Général Jacqueminot, Gloire de Dijon, Souvenir de la Malmaison, and others in the garden of the *Hôtel de l'Europe*, where we stayed over the Sunday. I can strongly recommend any persons who wish to see the scenery on the Mont Cenis route to advantage to make Aix-les-Bains a resting place instead of going straight through from Paris to Turin, which is a long and fatiguing journey, and if one leaves Paris in the morning to go straight through to Turin the tunnel and the scenery about Mont Cenis is passed at night. There are few prettier places than Aix and the district including the Little Lac de Bourget with its very clear and translucent waters.

I will pause here and continue my remarks about Italy, &c., in another number.—C. P. P.

## CARNATIONS AND PICOTÉES AT SOUTH KENSINGTON.—JULY 21ST.

But first let me say a word about the place itself. It really seemed as if some magician's wand had been waved over it and transformed it all. For some years one has never gone up to South Kensington without having to ask the question "What's up now?" and was sure to hear that something was going wrong. I know very little of the rights and wrongs, and should feel myself utterly disqualified from giving an opinion; but there was the fact, discouragement was ever the tone, and those who loved horticulture sighed to think what grand opportunities were being wasted. Well, Wednesday certainly brought no climatic influences to cheer one's spirits. A cruel and incessant downpour would under ordinary circumstances have thrown a damper on everything; but one saw or heard nothing of the kind. A general hopefulness pervaded the countenances of all whom one met. Men of all grades in horticulture—nurserymen, amateurs, gardeners—all spoke hopefully; and when Mr. Boscawen, as a member of the Council, asked the exhibitors to allow the exhibits to remain for another day, the cheerful acquiescence with which the proposal was met augured the best things for the Society, and it clearly showed that it will not be the fault of the horticulturists if the Society does not emerge from the clouds which have enveloped it. It was like passing away out of the mists and fogs of some dark valley to the bracing air of the mountain tops.

And now as to the Carnations and Picotees. It was a good sight for the eyes of an old florist to see even the few stands that were exhibited, and to note that there were three new exhibitors amongst amateurs—J. F. Burnaby-Atkins, Esq., Mr. Douglas, and myself; for although I have grown them for these thirty years and more on and off, I never exhibited a stand before. The prizes awarded by the Royal Horticultural Society have already been commented upon, let me now speak of those offered by the Metropolitan Floral Society; Mr. Burnaby-Atkins not competing for these, as he was not a member. There were but three exhibitors in Picotees and two in Carnations, Mr. Douglas taking first, as he is always sure to do in anything he goes in for, and on this his first appearance taking all the four first prizes. His Picotees were Ethel, rose edge; Admiration, heavy-edged purple; Mary, purple; Miss Small, red edge; Picco, purple edge; Princess of Wales, heavy-edged purple; Miss Williams; Mr. May, purple; Mrs. Hornby, light red edge; Miss Turner, red edge; Mrs. Allcroft, rose edge; and Juliana, red edge. Mr.

Only was second; his box contained amongst other flowers Rev. C. Matthews, Miss Fisher, Ensign, Gem of Roses, and Regulus. My own box was third, and was by no means satisfactory. Some of my blooms were not fully out, and I have not the slightest idea of how to dress a flower, and if I had the idea I doubt if I could do it. Mr. Douglas was again first in Carnations. His flowers were Campanini, Marx, and Guardsman, and I am sorry that I did not take the names; but in the list given in the Journal in the article on Mr. Turner's nurseries will be found a list of some really good flowers.

It was amusing to hear the remarks as friend after friend "poked fun" at me. "Ah, 'D.' you are in your element now." "Ah! there is a text for you," as an exhibitor stated that in old times they used to give as high a prize for a stand of Carnations and Picotees as for a collection of stove and greenhouse plants. Well, so it is a text. These flowers require great care, time, and expense. They are attractive to many whose means will not allow them to cultivate larger plants, and they have a beauty of their own, evanescent indeed, but still peculiar and attractive, and they ought to have more encouragement than they at present receive. Should our Metropolitan Floral Society be able to hold on its way I hope that it may be able to give still further encouragement to this lovely tribe. "Ah! but," someone said, "the flowers are not so good as those of former days." This I utterly deny—they are not only as good but a great deal better; and when the person who said this was brought up in front of Mr. Turner's stand he was fain to "eat his leek" as far as size, smoothness of edge, and delicacy of marking. In Picotees especially—I am not sure that the improvement is so great in Carnations—there is, I believe, vast improvement; but the rules for exhibiting have been greatly relaxed since those days, and I do not see quite how they could be enforced with these larger and fuller flowers. In those days, although they were exhibited on cards, yet the judges used to lift up the flowers, and if when they came out of the cards the petals were slit or the petals hung about the bloom were disqualified; but now a petal may be burst to the bottom, petals may be "anyhow or nohow," but the magic art of the dresser transforms it. Let John Ball take such a flower and have it for about two minutes, and you would never know the flower to be the same. Petals are pulled out altogether, others twisted into more convenient places, and the flower assumes a more symmetrical appearance. It may be a matter of question how far this is desirable, and indeed the code of honour amongst florists' flowers is, to say the least of it, peculiar. If a man gouges out the eye of a Dahlia he is disqualified, but he may pluck and pull as he likes at a Carnation or a Pink and it is all right. As I do not know how to manipulate one it may be retorted on me that it is the old story of the fox who lost his tail; if I say that I do not at all see that the flower gains in beauty and I am quite sure it deceives the multitude. My stand looked of course untidy besides those wonderfully dressed flowers, but I honestly prefer a well-filled-up centre, even although it may appear a little confused, to those whose every petal is laid out in order and the centre is nowhere. Indeed, I would re-echo Moore's lines—

"Lesbia wears a robe of gold,  
But all so tight the nymph hath laced her,  
Not a charm of beauty's mould  
Presumes to stay where nature placed it.  
But oh! for me my Nora's gown  
That floats as wild as mountain breezes,  
Leaving every beauty free  
To sink or swell as Heaven pleases."

And as I look over the few pots of plants I have I do not think as I examine their blooms, that I should gain much by altering their whole contour. It is the old story of nature versus art. The exhibited bloom is a work of art, the other is nature's production.

Let me also bear witness to the attention that these flowers always receive, and let us hope in the brighter days dawning upon us they may resume their former place of consideration.  
—D., Deal.

### MUSHROOMS IN 1875.

In your foot-note to "A. R., Bromley," you say that "the year has been prolific of all species of Fungi. Even in the north of England the markets were supplied largely with the common Mushroom as early as the first week in July." Now, as a native of the north, and an old Mushroom-gatherer, I fancy you are labouring under some mistake. Last year the districts of the north, comprising Cumberland, Westmoreland, and portions of Lancashire, supplied many tons of Mushrooms to the principal markets; but this year, so far, I question whether an aggregate of a dozen measures have been gathered in the three counties. The temperature so far has never been suitable. We have had plenty of showers, but they have not been followed by sufficient heat to develop good crops of Mushrooms.

During the last week we have had hot weather, and it is

possible that Mushrooms may spring, but I do not entertain any hope of 1875 being a plentiful year. In my experience I never recollect two good successive years of Mushroom growth, even when the season is favourable. The land appears to need a few years' rest before producing another plentiful crop. A few hints to Mushroom-gatherers may prove useful in preventing accident. Never gather Fungi from a damp marshy place, especially under trees or hedges. They are poisonous. The edible common Mushroom is of a bright salmon colour on the under side in its first growth; afterwards of a black colour. In this latter stage it is best for making ketchup. The edible Mushroom when broken gives forth a fragrant smell, and has a thick healthy appearance. The poisonous Fungi are fleshy, of a pale sickly colour underneath, and the smell is nauseous. Anyone who has ever experienced the smell of the edible Mushroom can never mistake it for the poisonous one.—BETA.

[Our note was not founded on mistake, for we saw at Scarborough and other places near the east coast of Yorkshire Mushrooms in profusion. Every little fruiterer had baskets full on sale, and they were hawked about by women and children every morning.—EDS.]

### ROYAL HORTICULTURAL SOCIETY.

AUGUST 4TH.

FRUIT COMMITTEE.—G. F. Wilson, Esq., F.R.S., in the chair. Mr. Miles, The Gardens, Wycombe Abbey, sent two Pines, distinct varieties, for the purpose of showing what is being sold in trade for Charlotte Rothschild. One was true, having the cylindrical broad-shouldered fruit, the other similar to a Queen, and especially to the Ripley Queen. It was stated by several members of the Committee that this mistake is very prevalent. Mr. Whittaker, Crewe Hall, Crewe, sent a seedling Melon—oval, and with a rich yellow-netted skin. The flesh is red, but the flavour was not superior. Mr. Stevens, gardener to G. Simpson, Esq., Wray Park, Reigate, sent a seedling Melon Wray Park Gem, which was quite unripe. Mr. White, gardener to Lord Listowel, Connamore, sent a Little Heath Melon. Mr. Perkins, The Gardens, Thornham Hall, Eye, sent a Victory of Bath Melon, of good flavour. Mr. Owen, Broughton Gardens, West Derby, sent a brace of seedling Cucumbers, which were much admired, but not an improvement on existing varieties.

Mr. William Paul sent a dish of Citron des Carmes Pear, and a dish of St. Etienne Pears came from the Society's garden at Chiswick. It is a very early yellow variety, and ripens in the end of July.

FLORAL COMMITTEE.—C. Noble, Esq., in the chair. The appearance of the Council-room on this occasion proved that the great Show on the 31st of July was no mere spasmodic effort on the part of the horticulturists, but the first expression of improvement designed to be permanent. The Exhibition to-day is but a reflex of the confidence which is now established, and which, we doubt not, will be sustained. Of this the collections of plants from Messrs. James Veitch & Sons, Mr. B. S. Williams, and Mr. Bull are an emphatic augury. Added to these were Roses from Mr. W. Paul, Waltham Cross, and Messrs. Paul and Son, Cheshunt, and Hollyhocks from Mr. Chater, so that the room presented quite a gay appearance.

The group of plants from Messrs. Veitch comprised a beautiful plant of *Adiantum princeps*, to which a first-class certificate was awarded. This is a very elegant Fern, somewhat similar but in all respects superior to *A. formosum*. A similar award was also made to *Asplenium ferulaeum*, which is one of the most graceful plants of this graceful family. Its fronds are about a foot in length, are beautifully arched, and as fine in the pinnae as are the most delicate *Davallias*. This is undoubtedly an acquisition and must become a great favourite: it is a native of Columbia. Thoroughly distinct from these, and indeed distinct from others of its genus, is *Dracena Taylori*, a hybrid from *D. magnifica* and *D. Mooreana*. It is of robust habit, with broad foliage of a metallic hue, and is altogether a striking variety. It received a first-class certificate. A like award was also made to *Dracena elegantissima*, a dark-coloured plant with narrow leaves of sub-erect habit. It is of dwarf growth and elegant outline, and one of the best of the family for table decoration. First-class certificates were also awarded for hybrid *Rhododendrons* *Duchess of Teck* and *Prince Leopold*, the former being of a soft buff colour, the latter a buff suffused with crimson. Each truss contains about a dozen flowers, in form very similar to *Weigela*; they are a very valuable race, from *Lobbii* and *Princess Royal*—the latter having been raised from *D. javanicum* and *D. jasminiflorum*. A species of *Alseodaphnia* from the Philippine Islands, provisionally named *Philippinense*, had also a first-class certificate awarded. It is a very fine species, the pinnae being twisted, giving it a distinct appearance. Exhibited by the same firm was a distinct form of *Pitcher Plant*—*Nepenthes marginata*—the rim of each pitcher being white, the body of a dark brown. Also, taken from the open

ground, was a basket of *Olearia Hastii*, a small shrub-like plant 6 inches high, densely covered with white Saxifrage-like composite flowers. They also exhibited fine plants of *Cissus Hendraei*, *Crotons*, *Zamia Wallisii*, *Platyocorium Wallineki* (first-class certificate), *Gloxinias*, and a singular and not uninteresting *Orchid*, *Pescatorea lamellosa*.

In Mr. Williams's collection *Alseophila australis* Williamsii had deservedly a first-class certificate. It is thoroughly distinct, and altogether a magnificent tree Fern of a weeping character. Another Fern, *Woodwardia radicans cristata*, is equally distinct and had a similar award, as also had *Streptocarpus Greenii*, a plant with *Gloxinia*-like leaves and lavender-coloured Mimulus-like flowers; it is very ornamental. Mr. Williams had also a well-grown plant of *Adiantum farleyense*, for which a vote of thanks was given. The rest of the group embraced *Palms*, *Dracenas*, *Ixora Dixiana*, *Hemantus puniceus*, *Dipladenia amabilis*, *Anthericum majesticum*, *Bertolonia Van Houttei*, &c., all in admirable condition.

Mr. Bull's collection was less extensive, but contained some distinct and fine plants. First-class certificates were awarded to *Cibotium Manziense*, with very vigorous fronds, and *Dracena Rex*, a dark variety of bold massive habit. Mr. Bull also exhibited *Orchids*, *Macrozamia*, *Liliums*, and *Hyacinthus candicans*, with six spikes 5 feet high, and a hundred bell-shaped white flowers, for which a cultural commendation was awarded.

*Begonia Froebellii*, Aph. de Camille, had a first-class certificate awarded. This is a bulbous-rooted kind, highly distinct; it has rich scarlet flowers, and Hollyhock-like leaves. It appears to have been grown in the open air, and is very striking. It is exhibited by Messrs. Froebel & Co., Zurich, and is a native of Ecuador.

The *Roses* from Mr. W. Paul comprised good blooms of the varieties which have been previously exhibited; and Mr. Chater's *Hollyhocks* were very fine both in spikes and blooms.

Messrs. Paul & Son, Cheshunt, had a second-class certificate for *Rose Duke of Connaught*, a medium-sized bloom possessing the velvety richness of Lord Macanlay with good substance of petal, and an agreeable perfume. They had other varieties, the most noticeable being a box of *Madame Lesharme* of great merit. As seen in the condition as here exhibited this variety has a charm which cannot be gainsaid. We never saw it so good, or "*D. Deal*," look better pleased than when admiring these truly lovely blooms. They were grown in the open air.

Mr. Dean had cut blooms of his useful Stock Mauve Queen, striped *Petunias*, and a semi-double yellow *Anrioula*. Out blooms of *Rosa bracteata* (single white Macartney) from Mr. Chater proved how well adapted is this species for the decoration of vases for the table.

### EARLY SNOWBALL CAULIFLOWER.

THIS proves a great acquisition, and will take a leading place among Cauliflowers. It is wonderfully dwarf, with compact white heads well protected by the leaves, and is really as early as its raiser asserts. I have lately been cutting excellent little heads of about 4 inches in diameter that are perfect models of what a first-class Cauliflower should be. The seed of this crop was sown on March 8th. I confidently anticipate that it will also prove an important addition to our late-autumn and early-spring supply, its compact dwarf growth admirably adapting it for fitting into frames and also for wintering under handlights. Seed sown now would afford a capital supply for the October shooting parties.—EDWARD LUCKHURST.

### PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

*VANDA LIMBATA*. *Nat. ord.*, *Orchidaceae*. *Linn.*, *Gynandria Monandria*. Native of Java.—Flowers orange, scarlet, and pink. Introduced by Messrs. Williams of Holloway, with whom it flowered in July, 1874.—(*Bot. Mag.*, t. 6173.)

*DIETES HUTTONI*. *Nat. ord.*, *Iridaceae*. *Linn.*, *Triandria Monogynia*. Flowers yellow, crimson striped.—"Sent by Mr. Hutton from the eastern province of the Cape Colony to the Kew collection, where it flowered in the month of March of the present year. This genus *Dietes* is scarcely distinct from *Iris* by any botanical character."—(*Ibid.*, t. 6174.)

*CYPERIDIUM AEGYPTIACUM*. *Nat. ord.*, *Orchidaceae*. *Linn.*, *Gynandria Diandria*.—Flowers many-coloured, petals profusely spotted with purple. "It was discovered by Mr. Wallis, Messrs. Veitch's collector, in the Island of Luzon, one of the Philippines, and was flowered in Messrs. Veitch's establishment in March of the present year."—(*Ibid.*, t. 6175.)

*CROCUS MINIMUS*—*CROCUS FLEISCHERI*. *Nat. ord.*, *Iridaceae*. *Linn.*, *Triandria Monogynia*.—"These are two welcome additions to our stock of spring Crocuses grown in this country. *C. minimus* was in the country before, but has been lost for

many years, indeed till now, when Mr. George Maw has brought it again from Corsica. It is frequent in that island, flowering in low situations in January, and upon the mountains up to March, and occurs also in Sardinia. It is the smallest of all the spring-flowering Crocuses, and is most like some of the varieties of variegated, but it has been confounded in this country with *hibernus*.

"*Crocus Fleischeri* is another interesting addition to our stock of garden bulbs made by Mr. Elwes in his tour in Asia Minor last spring. It is a very distinct plant, and has never been in cultivation before. The points which best mark it from other spring-flowering species are the divided stigmas and very complicated bulb-coats, the fine fibres of which are plaited in regular vertical strands. It was discovered on limestone hills near Smyrna by the botanist whose name it bears, and we have it also from *Officia* gathered by Ancher Eloy, and from *Lycia* gathered by the late Professor Edward Forbes. The specimen drawn came from the rich collection of the Rev. H. Harpur Crewe."—(*Ibid.*, t. 6176.)

*TULIPA GREIGI*. *Nat. ord.*, *Liliaceae*. *Linn.*, *Hexandria Monogynia*.—Flowers scarlet; leaves regularly spotted. "During the last two years no less than three striking new *Tulips* have been added to the list of species cultivated in this country. Although they come from different localities, they all three resemble one another closely, both from a botanical and horticultural point of view. They are *T. botica* of Boissier, a native of Greece; *T. Eischleri* of Regel, a native of Georgia; and *T. Greigi*. This species was gathered in Turkistan by Sewersow and Fedtschenko, and was named by Dr. Regel in compliment to General Greig, President of the Imperial Russian Horticultural Union."—(*Ibid.*, t. 6177.)

*PLUM*.—*The Sultan*.—"This fine new Plum is a seedling raised by Messrs. Rivers & Son of Sawbridgeworth in 1871. Dr. Hogg, in the new edition of his 'Fruit Manual,' describes it as 'a culinary Plum of great excellence; ripe in the middle of August.'

"The following is Dr. Hogg's description:—'Fruit above medium size, round, marked with a deep suture. Skin dark purple, covered with a thick blue bloom. Stalk about half an inch long, inserted in a wide hollow. Flesh greenish-yellow, adhering to the stone, firm, briak, and sweet, with a pleasant flavour.' Our own notes of the fruits submitted to us run thus:—'Fruit round, about middle size, with a rather shallow suture. Skin puce-purple or dark purplish red, dotted with minute brown specks, and covered with a thin bluish bloom. Stalk set in a deepish cavity. Flesh deep greenish-yellow, separating tolerably freely from the stone, juicy, and with a pleasant flavour, similar to that of the Orleans Plum.

"It is a handsome and useful Plum, and one which, being of prolific habit, is likely to become a favourite with fruit-growers."—(*Florist and Pomologist*, 3 s., viii., 145.)

### POROUS GARDEN POTS.

So far from having any prejudice in the matter I am one of the first to welcome Mr. Simpson's able communication. I have no interest in condemning, neither do I condemn, glazed pots. I know careful and clever plant-growers can grow plants in them, but I know also they are not safe to recommend for indiscriminate use in the regular practice of everyday plant-culture. I fully admitted the disadvantages of very porous pots, and pointed out these disadvantages with the means necessary to prevent injury. What I meant to say was that the safe course for general—which includes many who are not experienced—cultivators is the medium course, and that the extremes of absolutely dense or poreless pots on the one hand and excessively porous pots on the other are neither of them the best to recommend for general use.

I must ask Mr. Simpson to believe that I have actually practised with all the plants he names, also many others, and it is sufficient that the Editors are satisfied of my competency and disinterestedness to speak on the matter. As to the time and place of experiments, that is in no way material. The question is neither chronological nor geographical, but one of practice and judgment as to which pot—open, close, or medium as to porosity, or clean or dirty as to condition—is the best and most reliable for general use. I have every reason to recommend a thoroughly well-made clay pot, and I believe the makers of such pots may go on manufacturing, as not in this generation will such pots fall into disuse and be superseded by vessels of metal or glass.

For a long time I had a prejudice against clean pots, but

four years under a cultivator of some of the best plants which have been exhibited at the London shows entirely converted me to their use. Every year I was permitted to use a limited number of dirty pots for every kind of plants, which were grown in quantity. Since then I have always used clean pots, and I am sure I should not have been at the trouble of cleaning them had I not been conscious of the advantage of doing so.

I am acquainted with the plants of Dalketh, and can testify as to their excellence, yet I venture to believe that if Mr. Dunn received a new and rare Orchid demanding special care that he would not put it in glass, nor if he had a Heath of great value that he would grow it in a vessel of iron. I have the utmost respect for the practice—general and special—of Mr. D. Thomson; but what he can do everybody else cannot. His work is very familiar to me, for, like Mr. Simpson, I am proud to have been drilled in the school which Mr. Thomson has done so much to make famous. Possibly between Mr. Simpson and myself there may not be much difference of opinion as to what each of us would do under given circumstances, but between that and recommending a principle for general adoption there is a great difference.

It is not what can be done as a feat of skill, but what is the most safe and reliable practice for the great body of skilled and unskilled culturists that I prefer to keep in view when speaking of and recommending a mode of practice. For instance, while I can read a book almost as well wrong end upwards as right, I do not recommend that practice to be taught in schools. I much prefer the "general practice," for which, in gardening matters, I am sorry to see that Mr. Simpson has so little respect. The general practice under which the plants, fruit, and vegetables are produced by British gardeners which adorn our principal exhibitions is, I hold, worthy of great respect, and is more authoritative as an example to follow than is a special feat under special circumstances, and by special skill which happens to be worthy of notice.

I quite believe Mr. Simpson when he says that his bedding plants in dirty pots are as good as those of others in clean pots, but I interpret that as a greater compliment to the man than the pot. I do not recommend clean, well-finished, and well-burnt clay pots because plants will not grow in any others, but because these I prefer are the safest and the best, and I believe they will so prove themselves after another fifty years of practice. I thank Mr. Simpson for his letter.—EX-EXHIBITOR.

For some years past our garden pots have been painted inside and out with creosote in a boiling state. The reasons why I adopted this plan were three: Firstly, to prevent evaporation and cooling of the surface; secondly, to prevent fungus growing on the outside; and thirdly, to strengthen the material by filling up the pores. The colour after creosoting becomes of a rich brown, and not unsightly. My pots are made on my own pattern—shallow, to facilitate applying fresh material on the surface. I think there is no valid reason for imagining that a plant requires a porous pot.

—OBSERVER.

### OUR BORDER FLOWERS—GEUMS.

THOUGH the Geums are a rather numerous family we seldom meet with many of them in cultivation. In looking along our hedgerows we often see *Geum urbanum*, but being so common it is passed by without much notice, except by some of the collectors of herbs; but not so with *Geum rivale*, for some think it worthy of a place in the herbaceous border, and look upon it as a rarity. It is improved in stature under cultivation, but I always admire it most in its own native habitat, for to see this plant in a moist plantation on the limestone near a river, covering the ground with its leaves and graceful pendant flowers, is a sight not soon to be forgotten.

When we turn our attention to what may be termed garden varieties, and look on *Geum coccineum*, we see one of the brightest-coloured flowers that eyes can look upon. It is of rather pleasing habit, continuing long in flower. *Geum strigosum*, approaching to dark crimson in colour is also a charming border flower. *Geum pyrenaicum*, a yellow-flowered variety, is desirable for change of colour. *Geum album*, though an old plant, is seldom met with. *Geum grandiflorum* is one of the finest of the tribe, and ought to be in every garden. *Geum triflorum*, a dwarf kind with yellow flowers, is a desirable plant for the rockery, and is a very pretty plant for the front row in the border; it does not object to partial shade nor a moist situation, but should not be saturated with water.

*Geum montanum* is of rather taller habit, and is very desirable for the rockwork or borders. There are many others of this family that are interesting, but are seldom met with except in some very extensive collections.

They will thrive in most ordinary soils, but a little extra care will not be lost upon them. They delight in a rich tenacious loam, with a little well-decomposed manure or leaf mould and sand added. They are easily increased by seed or division after flowering. Some of the taller-growing kinds require staking to prevent them from being broken by the wind.—VERITAS.

### EARLY WRITERS ON ENGLISH GARDENING.

No. 6.

JOHN ROSE.

THE next writer following in the chronological order is John Rose, whose little volume, the only one for which he furnished the materials, appeared first in 1666, and subsequent editions in 1672, 1675, and 1691. I was misled once to mention him as the alleged author of an essay "On the Admirable Virtues of Coral," but I then doubted, and am now of opinion that it was not his production.

The volume which certainly owed its birth to him is "The English Vineyard Vindicated, by John Rose, Gardiner to his Majesty at his Royal Garden in St. James's. Formerly Gardiner to Her Grace the Dutchess of Somerset. With an address where the best plants are to be had at easie rates." Such is the title-page of all the editions, and the work is bound usually with Evelyn's translation of "The French Gardiner."

Rose says that it was "the supremest glory" of his profession to be the King's gardener, and he dedicates his book on "the Prince of Plants to the Prince of Planters," a title the King deserved on account of his "magnificent and emolumental encouragement of the culture of trees and fruit."

The origin of the book is thus told by Mr. Evelyn: "Being one day refreshing myself in the garden of Essex House, and, amongst other things, falling into discourse with Mr. Rose, then gardiner to Her Grace the Dutchess of Somerset, and particularly the cause of the neglect of vineyards of late in England. He reasoned so pertinently upon that subject (as, indeed, he does upon all things which concern his hortulan profession) I was easily persuaded to gratify his modest and charitable inclinations to have them communicated to the world." The result was that Mr. Rose gave the information, and Mr. Evelyn reduced it to writing.

For vineyard culture Rose recommends the Black Cluster, White Muscadine, Parsley-leaved, Muscadella, (not the Muscadine), Black and White "Frontiniques," and "a new white Grape, ripe before the Muscadines, which I found in his Majesty's garden at St. James's, with a red wood and dark green leaf, and ripening as soon in standards as against some walls."

Mr. Rose must have had permission from his royal employer to rear and sell Vines, for at the conclusion of his cultural instructions he states that he had "furnished himself with so plentiful a stock of sets and plants of all those sorts which he chiefly recommended, that those who desire to store their grounds might receive them of him at very reasonable rates."

We have no means of judging what Rose's taste was in ornamental gardening, but probably it was not differing from that which prevailed at the time. One of his fellow servants of the King, Hugh May, controller of the works at Windsor, told Pepys that "having the best walks of gravel in the world, and the green of our bowling allies excoelling, we need only a little mixture of statues or pots, which may be handsome, and filled with another pot of such and such a flower or green as the season of the year will bear; and then the flowers are best seen in a little plot by themselves, besides their borders spoil the walks; and then for fruit the best way is to have walls built circularly one within another."

The title-page I have copied only tells that Rose had been gardener to the Dutchess of Somerset; that was at Essex House in the Strand, and there also he was gardener to the Earl of Essex, as he had subsequently been to the Dutchess of Cleveland at Dorney Court in Buckinghamshire.

We have more than one evidence of the liberal, not to apply the severer term lavish, payments made by the Dutchess of Cleveland, not only upon her own residences, but upon her dependants whom she specially approved. Rose was one of these, and she probably obtained for him the royal gardenership, for he was promoted to it whilst she was the prime royal



comenbine. She was enabled to be lavish by the income poured upon her by the King. "They have bestowed ten thousand pounds a-year more upon the Duchess of Cleveland," wrote Andrew Marvel, "and she has likewise near ten thousand pounds a-year more out of the new form of the county excise of beer and ale, and five thousand pounds a-year out of the Post Office. All promotions, spiritual and temporal, pass under her cognisance."

Immediately after the Restoration, in November, 1660, the office of Keeper and Gardener of the Garden in St. James's Park, with a salary of £40 a-year, was granted to Rose; and on February 21st, 1666, a warrant was issued to pay him, appointed keeper of St. James's garden in place of Andrew and Gabriel Mollett deceased, £240 a-year for wages for keeping the said garden. Finding that Rose's stipend was so liberal, knowing also that both the Duchess of Cleveland and Charles II. rewarded liberally the servants they best liked, and further knowing that Evelyn and other men of good position patronised Rose, I thought it probable he died possessed of property requiring to be distributed by will. I was not wrong in my conclusion, and I have inspected a copy of the last will and testament of "John Rose of St. Martins-in-the-Fields." It was executed on the 22nd of February, 1676, and proved on the 24th of September, 1677.

The nearest relatives mentioned are a nephew named William Walker, and a niece, Elizabeth Chamberlayne. To them, their children, and many friends he bequeathed small legacies, amounting to nearly £400, but the bulk of his property he devised to the parish of Amesbury (Almesbury in the Will) in Wiltshire, of which I conclude he was a native. In it and its vicinity he had two copyholds and two farms, and in that county resided some of his legatees. Only one of these was of his own name, "Captain John Rose, of St. Clement Danes," and he is only mentioned as his "friend."

He made his sister-in-law, Eva Stanton, executrix and trustee, devising to her the residue of his property and his freehold lands at Ditchet (Detchet) in Somersetshire for the purpose of presenting a gilt communion plate to the church of Amesbury; £10 to be at once distributed among the poor of that parish; and to secure £80 a-year to an orthodox schoolmaster for instructing twenty scholars there, natives of the town. His funeral expenses were not to exceed £100.

The will was proved in seven days after his burial, for on reference to the register of the church of St. Martins-in-the-Fields I found this entry, "1677. John Rose. Sept. 17th. Sepult. in ecclesia."

His interment in the church shows that he was a parish magnate, a conclusion deducible from Evelyn's notice of him; and we have the further testimony of a contemporary gardener, for Switzer in his "Iconographia" says "Mr. Rose was first gardener to the Lord Essex at Essex House in the Strand, and afterwards to his Royal Majesty King Charles II. at the royal gardens in St. James's Park. He was esteemed to be the best of his profession in those days, and ought to be remembered for the encouragement he gave to a servant of his, who has since made the greatest figure that ever yet any gardener did, I mean Mr. London. He (Mr. Rose) may be well ranked amongst the great virtuosos of that time (now dead) who were all well pleased to accept of his company while living."

Having discovered Rose's connection with the county of Wilts, and that Sir B. C. Hoare in his history of that county has merely mentioned his name, I induced "WILTSHIRE RACER" to visit Amesbury, and he thus tells of its results—

"Amesbury in South Wilts is an awkward place to get to from North Wilts. Just as there are many cures for the tooth-ache because none are certain, so there are many ways recommended to those who wish to go to Amesbury because none are very direct. 'How can I best get to Amesbury?' had been for some days my question to everybody I met. 'Take train to Devizes, then drive on eighteen miles across the Plain,' said one. 'Go to Wyke and then drive ten miles,' said another. 'Go to Salisbury and then drive nine miles,' replied a third. 'Or go —;' but I grew tired of the various suggestions and chose my own route, which was to take train to Wilton and then drive eight miles across the Plain.

"Anyway Amesbury is an awkward place to reach. Rather an advantage this, given fine weather, which I had, because an out-of-the-way place retains some distinctive characteristics which are being fast obliterated by the universal nearness of railway stations. Peculiarities of dialect must soon go when everyone travels, and everybody will be educated, and hence a universal sameness will succeed.

"Reaching Wilton by rail I proceed behind a tired horse—(June is a great month for excursions, and horses are woefully hardworked)—and ascend those downs called Salisbury Plain, so called, I suppose, because not a plain. How grand that old unaltered open country is, and at this time of the year it is not dreary as in winter. About me, around me, above me, beneath me, is a sea of green; here and there corn waving in the sunlight, but more frequently the grass as of yore, though the bustards are gone, and even the Bustard Inn is no more. But the corn patches are not enclosed, so all is open and free to the eye as in the days of the Druids. After ascending the downs for a time we bend downwards to the valley of the South Wilts Avon (there is a North Wilts Avon as well); and, as always by a river's brink, there is a richer soil, more trees, and man's dwellings. Long straggling villages all named Woodford—Lower, Great, and Upper Woodford—are in turn passed. I notice that even in these out-of-the-way nooks in the bettermost cottage gardens among the old Cabbage, old White, and the old Maiden's Blush, how modern-named Roses have begun to make their appearance; and in the windows, instead of the old gawky sparsely-flowering Geraniums, are now the modern large-trussed bedders, making the low casements bright with bloom.

"The country improves as I go on until I come upon trim cottages, pleasant farmhouses, and, oh! one charming Elizabethan residence. No longer the short herbage of the down, but rich grasslands. I soon enter Little Amesbury, a neat hamlet with one fine old house, and crossing a bridge over the Avon—rather a wide stream at this point—I am in Amesbury, one of the many small towns of Wiltshire. I have as yet no knowledge of the place, save as connected with the great annual coursing parties lasting a week, the last day of which the meeting is at Stonehenge close by; and I also have heard that there is a glove manufactory in the town, while in common with all educated Englishmen I know the fact that not only British but Roman remains are near. Across the bridge to the left stands the church, formerly conventual—a grand massive structure, Norman probably in part, but with early English windows, with tower in the centre.

"But I have one chief object before me—namely, to make inquiries about John Rose and his connection with Amesbury.

"I see that the little town lies pleasantly, that it has two streets wide and clean, and has a fair sprinkling of good houses in it. I halt at the principal inn, which with its archway and stable court has an old-posting-house look about it. I inquire at once of the landlord about the school, and am directed to a grammar school, being, I suppose, taken for a paterfamilias in search of a school for a young hopeful. But the schoolmaster's house has too modern a look. I ask, 'Is there no other school? Is there not an ancient building?' 'No, none.' 'Not one endowed by John Rose?' 'Yes, Rose's Charity: there it is on the other side of the street. A woman is entering the gates.' I follow, and instinct leads me on down the yard, and an open door reveals school desks and school appliances. The time is only half-past eight of the morning, so school has not yet begun, but at his desk sits the master, Mr. E. W. Flower, to whom I tell my errand. I find Mr. Flower ready to hear and ready to tell anything he knows about John Rose. I am very pleased to find the master of such a school properly enthusiastic about its founder. Very different have I sometimes found it, when the resident of an ancient house cared nothing whatever for its history. I produce a copy of last week's *Journal of Horticulture*, with in it No. 5 of "The Early Writers on English Gardening," and explain to Mr. Flower that what we have done for John Parkinson we wish to do for John Rose. Mr. Flower is also a horticulturist, and shows me several prize cards, evidences of his success. Here, then, I have the very man I want—a lover of a garden, and a devoted admirer of the founder of his school. Mr. Flower produces from his desk the deed of gift of the school and the orders and ordinances relating to it. In this document we see that John Rose was most anxious that the master of his school should be a good man; that the scholars should be well cared for in body, mind, and soul. No one reading the document could come to any other conclusion than that Rose was both a religious and a kindly man. John Rose's school was no doubt first kept in the south aisle of the church—i.e., inside the building, just as the famous Rev. Robert Walker of Seathwaite, mentioned by Wordsworth, kept his, and even used the communion table for his desk. Then it appears, so Mr. Flower informed me, that the school was kept in a cottage; then where the National School now is; and afterwards, as now,

where I found Mr. Flower. The house is in the principal street, one of the last on right-hand side. It is a red-brick unpretentious building, and was formerly an inn, down the yard of which, in what was once the coach-house, the school is now held, and a fair schoolroom it makes.

"In the churchyard there is a stone to the memory of William Cox, who died in 1849. He was the schoolmaster of Rose's school for fifty years—a man, as I was informed, to whom the youth of Amesbury owed much: indeed, he was a famous schoolmaster, whose memory is revered in the place.

"Having spoken of the school let me next speak of the man Rose. Mr. Flower introduced me to two local antiquaries—Mr. Edwards and Mr. Kemm, and all I could learn was that there has been a long-standing constant tradition at Amesbury that John Rose when a boy passed through the place on his way to London in a destitute condition, and that he was kindly treated by the inhabitants, and out of gratitude to them endowed the school. Amesbury is rich in residents who revere its history, and the two antiquaries I have named were enthusiastic with respect to John Rose, and were delighted to learn,

produce of the said estate over £30 per annum to be applied in maintaining a second school for teaching twenty children to read and repeat the Church catechism, the person keeping the latter school to be paid £21 per annum; and by order of the High Court of Chancery, whatever surplus money may remain is directed to be applied by the trustees in the payment of premiums for the apprenticeship of boys educated in the same school.

"I have noticed that the church was restored in 1853, at which time some alteration was made in regard to the communion plate, all which or part had been purchased with the £30 left by John Rose for that purpose. What the exact amount of the alteration is I do not quite know, but Mr. Kemm informed me that round the rim at the bottom of the foot of the present flagon is the following inscription:—'The silver alms plate was given to Amesbury church by John Rose, Esq., who died in 1677.' 'The silver remodelled 1853.'

The trust deed, in which the donor is described as "John Rose of St. Martins-in-the-Fields, gent.," is dated August the 7th, 1677, and from it the following is extracted:—"Forasmuch as God Almighty hath been pleased out of His infinite bounty to give so great a blessing to my honest labours and endeavours, as to lend me not only wherewithal to support me with the ordinary necessities of life but with an overplus of the goods of this life, I have held it my duty whilst I am alive, and before the said goods leave me, to separate a part of the same towards the education of poor children in the first rudiments of religion and learning." The deed directs that with the bishop's leave the school should be on the south side of the church, wherein was formerly a school kept. The scholars were to be "the poorest men's children of the parish of Amesbury," and the trustees he nominated were all his "beloved and trusty friends," eleven in number, all residing in the neighbourhood of Amesbury, and two of them occupiers of his two copyholds called Pandys and Battrees, and his two farms, all in the parish of Amesbury. He stringently provides that the schoolmaster shall be orthodox and of "honest life and good conversation," and able "to teach the grammar, fair writing, cyphering, and casting of accounts." The salary of the schoolmaster, £7 10s. quarterly, was to be paid out of the rents and profits of Rose's lands in Ditchet in the county of Somerset. Then follow directions for the removal of the schoolmaster in case of his evil conduct, and to provide for him if he becomes incapable after lengthened service. None of the twenty scholars were to be admitted unless they could read English and repeat from memory the catechism, nor remain scholars after the age of fifteen. Whilst they were scholars "the schoolmaster to have a care their faces and hands be washed, their heads polled, and their garments kept clean." If the lands yielded more than £80 a-year, the surplus was to be employed in providing a school to teach the poorest children reading and the catechism, and thus render them eligible for his grammar school.

I hoped that some record of Rose's birth might have been found in the Amesbury church register, but that hope is vain, for "WILTSHIRE RECTORS" informs me that the earliest register is dated 1654, at which time Rose must have been in the prime of manhood. However, he was a resident if not a native of the place, for Mr. Flower, the excellent master of Rose's school, has searched a record of the annual meetings of the trustees, and thus communicates the result:—"I met with the following entry, which, to my mind, proves most conclusively that he was an inhabitant if not a native of Amesbury: 'At a meeting (held September 29th, 1788) of the trustees of the Grammar School founded by John Rose, late of the parish of St. Martin-in-the-Fields, in the county of Middlesex, gentleman, deceased, formerly of Amesbury, aforesaid,' &c. I should mention also further that I met with the baptism of a child of the name of Rose, date about one hundred years ago, thereby showing that persons of that name (since the decease of John Rose) have been residents in Amesbury."—G.

Fig. 15.—John Rose.

what before they did not know, that an oil painting of him presenting the first English-grown Piss Apple to Charles II. was in existence, and that an engraving has appeared in this Journal.

"Unfortunately there is no record at Amesbury of Rose's birth or death; the former is not to be found at Ditchet, near Everescech, in Somersetshire, where Rose possessed property. Mr. Kemm had understood from his ancestors that Rose when a poor lad, on his leaving Amesbury, worked in the parish of St. Martins-in-the-Fields, London. I must add that the school is at Amesbury designated 'Rose's Grammar School,' and that a second school was established out of the proceeds of the charity, but on the death of the mistress some years ago it has been discontinued, and the salary formerly paid to the mistress now augments that of the master.

"Mr. Flower next takes me to the church, dedicated to the Virgin Mary, a lofty cruciform building, restored in 1853, chiefly, I believe, by the munificence of Sir Edmund Antrobus, Bart., of Amesbury Abbey, owned formerly by the Duke of Queensberry, the friend of Gay the poet, who spent much of his time here. It is a solidly and handsomely restored. At the west end is a table of endowments; that relative to Rose reads thus:—"John Rose by deed of gift dated 7th of August, 1677, vested an estate at Ditchet in the county of Somerset, consisting of a homestead and fifty-two acres, two roads, and thirty poles of land, in the hands of trustees for the perpetual endowment of a free grammar school in this parish for the instruction of twenty boys in grammar, writing, cyphering, and casting accounts. The master to be paid £7 10s. quarterly, and the

## HACKNESS HALL,

THE RESIDENCE OF SIR HARCOURT JOHNSTON, BART., M.P.

The village of Hackness is in a valley distinguished for its beautiful combination of woodland, hill, and water, for the Derwent flows along the valley. Hither retired Hilda, the foundress of Whitby Abbey, twelve hundred years since; and here probably William Rufus hawked, for the district was his. He granted a large portion to some of the Whitby monks, and their monastery in the time of Henry VIII. passed to the Hoby

family, and thence by marriage to the Sydenhams, who sold it in 1696 to John Vanden Bempde, Esq., whose daughter and sole heiress brought it by marriage to the family of the Johnstones, and the present mansion was erected by the first baronet of this family at the close of the last century.

The usual road taken in visiting Hackness Hall is along what is most inappropriately named Forge Valley, for few valleys of England are more beautiful, and now there is in it no forge. Its sides—beautifully wooded, but not so densely as to conceal the turf, wild flowers, and Ferns beneath—rise rapidly to a height of 800 feet; the Derwent flows beside the road, and on some of the turfey promontories of its windings were groups of pic-nickers and gatherers of wild Strawberries. The trees are mostly Beech, and towards the close of the valley near the Hall they are partly of the copper-coloured variety, and all of very large stature. That close of the valley is

superlatively beautiful, for the valley branches there, and peeping from among varied groups of varied trees, and widely apart on varied elevations, are the residences of the vicar, the steward, and the church, forming a combination that the pencil and not the pen can represent.

Having mentioned the wild flowers I will add that than in this vicinity nowhere are they to be found in greater profusion; of those of commonest occurrence I will only name the numerous species of Grasses and the Ladies' Bedstraw—the grey and purple flowers of the first and the yellow flowers of the other are in masses spread far and wide. Of the rarer species I gathered the Lesser Twayblade (*Ophrys cordata*) and the Nettle-leaved Bellflower (*Campanula trachelium*), the latter towering at intervals above all the others, and its fine delicate pale blue flowers rendering it aristocratic-looking among its humbler-statured companions. Prominent among these was

Fig. 16.—HACKNESS HALL.

*Geranium sylvaticum*, a northern perennial found from the midland counties northward until it reaches 2700 of elevation in the Highlands. On the moors near in one or two very restricted localities is found the rarer *Cornus suecica*.

Mr. Sowerby met me courteously at the gate admitting from the road to the kitchen garden, which is of four acres extent, and enclosed by a 12-foot wall. On these are Plums, Cherries, Apples, and Pears. Even the Nonpareil requires the wall. Of Pears Mr. Sowerby finds the Glout Morceau and Crasanne the most certain croppers, but the Jargonelle very uncertain, and the Van Mons productive but almost worthless. There are seven small lean-to Vine and Peach houses, and the crops were very abundant and healthy. Mr. Sowerby thins the bunches of Grapes very freely, and the berries are proportionately large. There is no early forcing, for the family are away until August, and for the early months of the year the late-keeping of the Lady Downes' is relied upon. The other varieties of Grapes are Muscadines, Black Frontignan, and Muscat of Alexandria. The crops of the Peach Royal George and Nectarine Violet Hâtive are excellent. One of the houses is devoted to flowering plants, Ferns, and fine-foliated plants for the house decoration. Another house is devoted to wintering bedding plants, and its entire roof is covered with *Stephanotis floribunda*, most profuse of flowers when I was there. The kitchen garden was well cropped, and on the walk-borders

were espaliers and dwarf standards of Apples, the boisterous winds sweeping the valley forbidding full standards.

From the kitchen garden we passed under a densely-foliated arched pathway to the lawn before the south-west front of the Hall. That arched pathway reminded me of one possessed in former years by my family, and which the gardener, quite innocent of punning, called "the subterranean path."

The lawn occupies six acres and there is no other dressed ground, nor is any more needed, for it is most beautiful. In whichever direction you look there is a foreground of bright turf enamelled with beds, mostly circular, filled some with Roses trained over their surface, others with Geraniums, and others with bedding plants such as Golden Pyrethrum, *Alternanthera*, with Lobelia and Sedums for edgings. Then, there are large rustic baskets filled with Geraniums and elevated on rustic pedestals, and Roses grouped and trained to stakes so as to form pillars about 5 feet high. This foreground is enclosed by groups of trees, there are no continuous lines, Weeping Limes, noble Beeches, and Conifers all fine and feathered to the ground. Among them I noted an *Abies Douglasii* 50 feet high though only forty years old. Over these groups of trees, for the mansion is on a very elevated site, the eye looks upon the river Derwent in the valley below, and over a tract of richly wooded country to an horizon many miles distant.

The prospect to the mansion's right including the church in

the near distance is very rich and varied, and its lofty and slender spire well relieves the rounded outlines of the trees around it. Many are the monuments within the church I would willingly dwell upon, especially that graceful group by Chantry, of the dying wife and her kneeling husband, grief-subdued and with face judiciously hidden, leaving to the imagination the sorrow of its expression. More than one poet has celebrated the beauties of this place, but space can be spared for only two verses, which I select because unexaggerated:—

"Ah! what enchantment Nature's hand supplies  
What witching scenery decks this blissful retreat  
What headlands green, and promontories rise,  
Of old patriarch Oaks the favourite seat!

Go, climb the heights, when clad in twilight grey,  
The soft still moon pulls off the veil of night;  
Thence, all these valley-dimpled plains survey,  
These beaked hills with waving foliage dight,  
Yon beauteous spire, the heath-impurpled moor,  
And ocean slumbering on the distant shore."

—G.

### SHIFTING GREENHOUSE PLANTS WITHOUT INCREASING THE SIZE OF THE POTS.

PROBABLY others of your readers besides the writer have found it desirable, and perfectly practical, to shift many of their greenhouse and stove plants annually, or every two or three years, without giving them more pot room—though I believe it is the usual practice to shift on, until both plants and roots are of unwieldy size. This practice is so far necessary in growing large specimens; but it is followed in not a few cases, I imagine, through timidity to reduce the roots of the plants sufficiently: and so such things as Azaleas, Heaths, Genistas, Acacias, &c., soon get too large for general use, and in the end have to be thrown away to make room for younger stock.

Here, the most of our plants of this kind are employed in house-furnishing, and having large numbers of small single vases in corners to fill with pot-plants; and not wanting to turn the plants out of the pots any time they are used, we try to keep them all in suitable-sized pots, that will just fit; and wishing to keep the old plants on as long as possible without increasing the stock, we have to deal with them in a summary manner in potting. Some of our Genistas, for instance, have been in the same 7-inch pots for six or seven years, and look as if they would keep their health and vigour under the same conditions for twenty years or longer. They are about 8 feet high when in flower, and 2 feet fully through at the base. The health of the plants is all we could desire, and they always flower most profusely.

The plants have just been clipped-down with a pair of hedge-shears to the diameter of the pot, and shifted—that is, they have been turned out, and had about 2 inches cut clean off the bottom of the ball, not including the drainage, and 1 inch sliced off all round, and put back into the same size of pot again. Had it suited our purpose, no doubt we could have had the plants twice their present size or more without increasing the size of the pot. Some dozens of Azaleas in 5 and 6-inch pots have been treated the same way, also Acacias and other plants. Plants so treated experience no greater check, I think, than if the balls had only been slightly loosened round the sides in the usual way. The knife makes a clean cut, and the solid piece of ball left in the centre seems to be quite sufficient to sustain the plant in a healthy state till it makes fresh roots. We have not operated so extensively on Heaths in this way, but have sliced pot-bound plants of Hyemalis and others without apparent injury, as the plants made their usual growths.—S. W. (in *The Gardener*).

**EARLY SEEDLING PEAR.**—A correspondent from Mount Airey near Philadelphia, under date of July 17th, sends us the following, says the "Gardener's Monthly":—"I send you herewith a branch of a Pear tree with ripe fruit, a seedling from the Seckel, the seed having been planted, and the tree grown on my place. The quality of the fruit is only fair, but coming in a few days earlier than any other variety, I think it has some value. You will notice that the foliage, and the growth of the fruit in clusters, resemble somewhat the Seckel."

[This is before the Doyenné d'Été, Dearborn's Seedling, or any early Pear we know. The flavour is but second-class, but on account of its early ripening it would be valuable as a

market fruit, where early Pears for stewing are always in demand.—Ed. *American G. M.*]

### NOTES AND GLEANINGS.

**LADY ASHBURTON'S STOVE AND GREENHOUSE PLANTS**, removed from Melchet Court, near Romsey, were sold on the 28th ult. by Mr. Stevens at his rooms in King Street. There were 268 lots. The following were some of the prices realised:—*Lælia anceps*, £11 11s.; *Oncidium concolor*, £15; *Lælia elegans* Turneri, £48 6s.; *Phalenopsis Schilleriana*, £38 12s.; *Cypripedium caudatum*, £16 16s.; *Anthurium Scherzerianum*, £32 11s. These were all very superior specimens.

THE annual meeting of the PELARGONIUM SOCIETY was held on the 22nd of July, on which occasion the members present dined together at the "Criterion." The Treasurer, Dr. Denny, was able to report a healthy state of the finances, a balance of £20 8s. 4d. remaining after paying the prizes awarded at the exhibition on the previous day, and all the working expenses. The sum paid out in prizes was £40. A hope was expressed that the Society, now that it had become better known, might draw around it more abundant support, so that encouragement might be extended to other classes of Pelargoniums besides the Zonals, which was the class specially in view when the Society was originally founded. It was also thought that the inducements offered by the Society might set hybridisers to work, and so be the means of obtaining new types of this useful decorative family. The Chairman, Treasurer, Hon. Secretary, and Committee were re-elected, the latter body being strengthened by the addition of the names of Mr. Andrew Henderson, Mr. G. T. Rollison, Mr. B. S. Williams, and Mr. J. F. West. A very pleasant evening was spent, in the course of which a most interesting discussion took place as to the influence of the pollen in cross-breeding and on other matters connected with the history and improvement of the Pelargonium. Mr. Pearson suggested that the Society should endeavour to find and to fix satisfactory and intelligible names for the different groups of Pelargoniums, instead of the inapplicable ones—Show, Fancy, Tricolor, Zonal, &c.—now in common use. In reference to the origin of the Fancy Pelargonium Mr. Cooling stated his belief that the first variety of this type, which must have been raised forty years ago, was one called Willoughbyanum, and that it had been bred from the ordinary varieties of that period crossed with such sorts as Moore's Victory, Fair Helen, &c., Willoughbyanum being one of the seedlings thus produced. Mr. Williams urged that the objects of the Society were too restricted, and that other flowers should be included; but this objection was met by the argument that to extend the scope of the operations would require more funds, and would create a divided interest, whereas it was better for the Society to concentrate its present efforts on the flower which had been selected, and that other elements would be found in the Show with which that of this Society would always be associated—that of the Royal Horticultural Society for example, as was the case this year.

UNDER date of August 2nd Mr. Mowbray, gardener to Viscount Kirkcaldy, Fulmer, Slough, writes, "The POTATO DISEASE is spreading very much around here. I find this day three peeks out of four bad, and I fear the damage will be extensive. The disease appears to be very virulent indeed in its nature."

Messrs. Hooper & Co. write to say that the probability of a prevalence of the Potato disease this autumn, and of the early decay of the haulm, leads them to believe that it will be in the interest of competitors to AWARD THE PRIZES AT AN EARLIER DATE than has been fixed—viz., November 10th. This change, however, must be contingent upon the consent of all the competitors, and they therefore request the favour of their stating whether it will be agreeable and convenient that the adjudication shall take place some time in the month of September or thereabouts, instead of November.

### NOTES ON VILLA AND SUBURBAN GARDENING.

**THE CHINESE PRIMULA.**—This being such a useful decorative plant I may be excused for once more calling attention to it, especially as the most simply contrived place can afford a home for this excellent plant. I shall presume—and no doubt shall be nearly right—that most of those who intend to grow it have already their plants up and pricked-off into pots or pans; and if that should be so, and they have made five or six small leaves

it will be proper to divide the plants carefully, and let each one occupy a small pot, being careful that the soil in this stage is not too strong; two-thirds fine loam and the remainder of leaf mould and sand is a suitable compost. After this is done replace them in the frame where they were first raised, and let them establish themselves. By no means does the *Primula* need that amount of heat that many persons feel inclined to give it; too much heat conduces to weakly-constituted plants.

A cool frame is one of the best places for these plants after they have established themselves at the stage stated above. They do not need much sun, but they should have all the light that can otherwise be allowed them. A free circulation of air about the plants is necessary, and in the summer months if the frame is hoisted on bricks, and the air allowed to pass under as well as above the plants, it will induce them to become stout and sturdy in their growth. The plants should be elevated so as to be as near the glass as is consistent with the conditions of growth, and allowing at all times room for the development of leaf and stem, which is so essential to all plants that are required to flower at so dull a period as the *Primula*.

Now the *Primula*, which is one of the best of plants for an amateur to grow, must not be starved, but should be grown in a generous way, and it will well repay the cultivator by its massive blooms. There are very few bad strains of this class of plants about, so that if grown well the individual flowers come very fine.

Nobody can grow *Primulas* in a cold damp house, and where they are perhaps overshadowed by large plants, and have neither sufficient light nor air. Great care, too, is necessary in the watering, which should be done as early in the day as possible, adapting the quantity to the requirements of the plant and the surrounding atmosphere. Guard against the soil becoming too wet and perhaps soddened, for if this often occurs, and for any length of time, the plants will become sickly and die-off.

There are many semi-double and double forms of the *Primula* in cultivation which are worth growing, as they last in bloom a long time. They are increased by cuttings; therefore those who undertake their cultivation should secure a well-established plant at the first. Drain the pots well, and use a soil composed of good turfy loam, leaf mould of the purest character, and a little old and well-rotted cow manure, with sand and charcoal added. Do not give them large shifts, and let them only be potted when the roots are fairly working at the outside of the ball of soil. The plants like plenty of light, but shaded from the full sun, as a dry parching atmosphere is injurious to them. Water must be given carefully. In hot weather in summer a cool north aspect is suitable to the plants, and they may be freely ventilated. These are the principal points in their culture, which if attended to will bring the plants in good health and vigour, and will bloom freely throughout the winter months. Be sure that in winter they have all the light possible, and to be very cautiously watered at that season.—T. RACORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

ALL around us the farmers are digging their Potatoes and sending them to market. The progress of the disease suggests the propriety of sending them off as speedily as possible; this is being done, and the result is that £4 to £4 10s. per ton is only being realised for the best produce. Added to this low figure it must be noted that in some instances there is not more than half a crop from the attack of "curl" early in the season; numerous diseased tubers are also found, and a very large proportion have the white speck on them—always a sure forerunner of the disease. We have not found any symptoms of it in the garden as yet, but this is attributed to the dry borders in which the Potatoes are growing. The tubers intended for plants next season have been stored in a dry loft spread out thinly on the floor.

We do not usually save any of our own vegetable seeds, leaving this work to the seedsmen, who can do it much cheaper and better; but the new system of sending out the new Peas at 60s. a quart instead of 5s. as formerly has driven us to do a little of it. With care a packet containing a quarter of a pint gives us about three quarts of Peas, which is quite sufficient for the usual sowings of any new sort for the following season. The pods are gathered as they ripen, and are spread out in a dry place until the Peas are quite hard in the pod, when they are stored away in bags, or, what is better, tins; the preference being given to the latter, as the mice are apt to gnaw the bags, either paper or cloth, into holes.

We have taken advantage of the rains to put out the Strawberry plants; of course the ground was first trenched and well manured, as we have previously described. A hole is also taken out for the plant large enough to allow of some good loam being put in. This would not be necessary on good Strawberry soil, but in our light soil it is. The plants which have been previously layered in small pots are then put out in a shallow depression, to

allow of watering them if necessary. One would have thought that the continuous wet, followed by heavy falls of dew every night since, would have kept off red spider; but it has not done so, and the plants have been plunged overhead in soapy water. The weather being now fine, and the ground from the effects of rain having been surface-hardened, it was quite necessary to run the hoe over all borders and amongst growing crops.

We plant Sprouting Broccoli on vacant ground, and it is now a good time to plant vegetables of this description for winter and spring crops. Broccoli should be planted out on the beds from which the old Strawberry plants have been removed. Celery for the latest use should now be planted out. See that this crop does not suffer for want of water, but this may be overdone, especially on heavy soils, if the drainage is deficient.

### PINEAPPLES.

We cannot add much to the remarks in the "Doings" of the last two numbers under this heading, but it may just be hinted that those who have not yet potted their suckers should see to it at once. In fruiting houses, especially where only a small number of plants are grown, the aim of the gardener is to produce certain fruit at the time they are required. Sometimes Queens are stubborn and will not change at the time they are expected to do so, at another time they will not keep in good condition. We find ripe fruit keeps a long time if placed in a dry cool room; and to hasten the ripening one gardener of considerable experience pulls the plant out of the pot after the fruit has begun to swell, shakes nearly all the mould from the roots, and repots the plant in a small pot. This would certainly accomplish the end in view, but the fruit could not possibly be of such good quality; indeed, all fruit ripened hurriedly, whatever the means used, is never of such good quality as that ripened with the treatment best adapted to it.

### PLANT STOVE AND ORCHID HOUSES.

As all hardwooded plants are now maturing the wood, it is desirable that they should be as fully exposed to the sun as the leaves will stand without injury. In many gardens, and even those of considerable size, there is one house devoted to flowering and foliage plants, a miscellaneous collection of Orchids, or indeed any plant that is too tender for the greenhouse. It is not possible under such circumstances to do justice to all. Some plants require all the sun they can have at this season, others would be much injured by it; so a compromise is made. The house is not shaded enough for some plants and too much for others, and none of them receive the treatment they ought to have, and yet employers may fancy that their gardeners ought to rival the fine plants shown by people who make a specialty of them at the different exhibitions.

Hardwooded plants, such as *Ixoras*, *Gardenias*, *Stephanotis*, *Dipladenias*, and plants of this character ought to be removed to a house where they can have more light and air. In very hot weather it is quite as well to shade for an hour before and two hours after noon. We find room in the Pine houses for them, but they are not admitted unless they are quite free from bug. The plants are thoroughly syringed at least twice a-day. It is also a good time to put in cuttings of the hardwooded plants; the half-ripened wood if taken off at a joint, and the cuttings inserted in sand, and the pots placed under bell or hand-glasses, will root in time. Some species take much longer to do it than others.

Palms are subject to the attacks of red spider; if the leaves are not syringed daily this pest is certain to attack them. It must be sponged off, and the plants syringed daily afterwards. The Cocoa-nut Palm (*Cocos nucifera*), and the more slender-growing *Chamedores graminifolia*, are peculiarly subject to it. Any Orchids that have not been repotted or placed in fresh baskets ought now to be done. Many of the species that are grown in pots are apt to become sour at the roots, and decay sets in. A good plan is to wash the plant out of this unsuitable material, and to repot it in clean crocks only. Orchids during the growing season require plentiful supplies of water on the roots, and if the pot or basket contains peat or sphagnum in a state of partial decay this is certain to be destructive; it is not the nature of the roots to take up moisture from such a source, and they soon suffer in consequence. We have seen *Aërides* and *Vandas* turned out of large pots, and the only sound roots were those thrown out above the potting material. Our plan with this class now is to plant in potsherds entirely, with just an inch or so of live sphagnum on the surface. The roots thrive in this if there is no decaying organic matter underneath. The sphagnum should be kept in a healthy growing condition.

### FLOWER GARDEN.

*Verbenas*, *Pelargoniums*, *Calceolarias*, and other fragile flowers looked very seedy during the rains, but they are now flowering freely; the withered trusses and flower-stalks require to be removed, and all weeds have been picked off by hand. *Tricolor* and *Bicolor Pelargoniums* that have been planted for leaf-effect must have the flowers removed, or the arrangement of colours may be interfered with. *Lady Cullum* is exceedingly effective this season, and *Bright Star* of the silver bicolor class holds the highest position; the white is exceedingly pure. Our bedding

Zenals comprise old favourites that have done good service for many years. One often hears of the excellent qualities of the new varieties, but they come in such crowds that it is quite impossible to purchase all, and according to the vendor's description all of them have superior qualities. We still grow Amy Hogg and Christine for pink, Vesuvius for scarlet, and of crimson shades Stella and Wellington. It is not a long list, but they answer our purpose very well.

Phloxes are now in fine flower, the spikes are very strong; they are from two-year-old plants, the delicious perfume is wafted a considerable distance from the beds. A rich soil and plenty of water during the growing season is all the treatment they require beyond tying the spikes to a stout stick. Have been layering Carnations and Picotees. Nearly all our collection has been grown in pots, and as the flowers open they are removed to the greenhouse to protect them from the weather, but as soon as the flowers are over it is best to remove the plants outside again, as the "grass" becomes drawn up weakly; the surface soil in the pots is removed, and some sandy loam put in its place, in which the layers are pegged down. We have also tried to propagate some of the sorts from cuttings, but to be successful with them they ought to be put in about the latter end of June. It is then necessary to mark them with a corresponding mark on the plant from which they have been taken, as the flowers may be "run," when the plants from it would be worthless. Pippings strike best in a close frame under a north wall.

Auricles are now starting into growth, and it is necessary to remove all decaying leaves, which if allowed to remain sometimes taint the stem and lay the seeds of decay. Our plants were potted in June, but those who have not yet repotted their plants should lose no time in doing so. Pinks have rooted freely in boxes, and will be planted-out in some fine soil some time during this month to be transferred to the beds in October.

We are also budding Roses: this is interesting work for amateurs, and unless the weather be dull it is best performed in the cool of the evening. If the Manetti stock is used the buds should be inserted close to the ground. The same advice may be followed with the seedling Briar. Standards are budded on the young shoots that spring from the stem; the buds ought to be inserted quite close to the base. A spud ought to be always at hand to remove all suckers as soon as they are perceived; it is sometimes necessary to remove the soil so that the sucker may be wrenched out at the heel. Manetti suckers are not unfrequently mistaken by the inexperienced for growths from the Rose, and these are pruned and treated as the stems of the Rose itself. When this is the case the Rose will die out in two years, and nothing but Manetti remain. This we have seen where half a dozen young gardeners were kept.—J. DOUGLAS.

### TRADE CATALOGUE RECEIVED.

Louis Van Houtte, Royal Nurseries, Ghent, Belgium.—*Catalogue of Bulbs and other Flower Roots.*

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

OTLEY.—August 7th. Mr. Jno. Lee, Hon.-Sec.

ROSEDALE-NEWCHURCH.—August 7th. Mr. M. J. Lonsdale, Newchurch, Sec.

LITTLEOVER (near Derby).—August 7th. Mr. B. Toft, Hon.-Sec.

CANTERBURY.—August 13th.

NATIONAL CARNATION AND PICOTEES SOCIETY.—August 18th and 14th, in Manchester Botanic Gardens. Rev. F. D. Horner, Kirkby Malsard, Hon.-Sec.

BURNOPFIELD.—August 14th. Mr. J. Hood, Sec.

LEAM.—August 14th. Mr. H. N. Illingworth, Sec.

CARTMEL, NORTH LANCASHIRE.—August 14th. Mr. W. Cragg, Hon.-Sec. COVENTRY (at Coombe Abbey).—August 17th. Mr. T. Wigston, 8, Portland Terrace, Sec.

DOVER.—August 18th.

NORTHLEACH.—August 18th. Mr. J. Walker, Hon.-Sec.

CHARD.—August 18th. Mr. T. L. Brown, Hon.-Sec.

EASTBOURN.—In the Devonshire Park.—August 19th. H. A. E. Bumble, Esq., 26, Hyde Gardens, Sec.

GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.

PORTPOOL.—August 19th. Mr. Ernest Deacon, Hon.-Sec.

ULVERSTON.—August 20th. Mr. Geo. Higham, Hon.-Sec.

CONISTON.—August 24th. Mr. Jas. Dickinson, Hon.-Sec.

HARTLEPOOL.—August 24th. Mr. Councilor H. Magoris, Hon.-Sec.

NEWBURY.—August 24th. Mr. H. Seymour, Hon.-Sec.

BURTON-ON-TRENT.—August 25th. Mr. W. Shave, Sec.

ISLE OF THANET (St. Peter's).—August 25th.

RAMSLEY.—August 25th. C. D. Smith, Esq., 8, Marine Terrace, Margate, Hon.-Sec.

DURER.—August 26th, 27th, and 28th. Mr. R. McKelvie, 51, Reform Street, Sec.

WAKEFIELD.—August 28th. Mr. A. Holmes (Parish Clerk), Sec.

CHIFFENHAM.—August 31st. Mr. Alfred Wright, Sec.

DEAL AND WALKER.—August 31st.

BATH.—September 1st and 2nd. Mr. B. Pearson, 18, Millsom Street, Sec.

GRANT YARMOUTH.—September 2nd. Mr. B. Aldred, Hon.-Sec.

NIXON AND WHITWELL.—September 2nd. Mr. E. W. Berry, Hon.-Sec.

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

HEATING BY PARAFFIN OIL (R. F.).—We do not see that your mode differs from others in which gas has been employed for heating. When you have proved that a paraffin lamp will give out sufficient heat to exclude frost we shall be pleased to hear from you again.

BEGONIA SEEDLINGS (Inquirer).—The flowers were quite withered.

POTATOES BEGINNING TO BE DISEASED (H. B. E.).—Take the crop up immediately, and store them in a cold dry out-house in layers alternately with sand. If you had taken them up in mid-July they would not have been diseased.

SPONARIA CALABRICA FAHLENG (J. H.).—We are unable in the absence of any particulars to assign a cause or remedy, it probably having been destroyed by the "white" grub you have found at the roots.

KEEPING CUCUMBERS AND VEGETABLE MARROWS (F. J.).—Beyond keeping Cucumbers in a pickled state, and Vegetable Marrows in the ripe form, we do not know of a mode of preserving them for a few months in a useable state.

SEEDLING FIG (J. H.).—The leaf is very deeply lobed and dissimilar in formation from any we are acquainted with. It is likely the tree would fruit were it planted-out against a south wall, or more certainly were it grown in a large pot and under glass, especially as it is now showing fruit at "every point." By all means ascertain what the fruit is before you discard it or increase it.

CUTTING-BACK LAUREL HEDGE (H. T.).—Defer the cutting-in until the close of March or the early part of April, and you may then cut-in the branches, old or young, to the extent required with every chance of their putting-out young shoots freely. Go over the growths early in August, and cut-in any irregularities.

THRIPS ON PLATYLOMA CORDIFOLIA (Constant Reader).—The frond sent us is infested with thrips, which causes the whiteness of which you complain by the insects destroying the tissues. This Fern and the other you name—viz., *Cyatium falcatum*, are very subject to attacks of thrips. Fumigation with tobacco is the best remedy, which to be effectual should be repeated on two consecutive evenings, and again in a week, and again whenever an insect is seen. If only these plants are infested the plants may be freed by a wet sponge, or the fronds immersed in tobacco water, which may be made by pouring boiling water upon the strongest shag tobacco—1 oz. to every half gallon of water. When cool it is fit for use. Excepting young plants and those in very small pots growing freely we do not advise Ferns to be potted at this time of the year, though it may be done satisfactorily with pot-bound plants.

CONSTRUCTING FORCING PIT (Amateur).—A low span-roofed one is most suitable for a majority of plants, and having a walk up the centre with about 4 feet width on both sides for plants. One side we should have a bed with hot-water pipes—i.e., two 4-inch pipes in the 4-feet width for affording bottom heat to such plants as may require it, for striking cuttings or for affording bottom heat to Cucumbers or Melons, whichever you may use the pit for when not employed for forcing. The walls we should have 4 feet high, and you may have 2-feet side lights, and the pit about 10 feet high in the centre from the floor to the ridge. The side lights should be made to open the entire length on one side, or better every other light on opposite sides, and lights of 2-feet width the entire length of the pit on one side of the ridge, and to open by cranks and lever, also the side lights. In addition to the two pipes for bottom heat you will require two on the same side for top heat, and also two on the opposite side, which we should have beneath the shelf on that side. Over the walk you may have a shelf, which will be very useful for dwarf plants or Strawberries, and under the stage you may force Sea-kale and Rhubarb, the former being covered-up so as to blanch the growths. The length of the pit may be what you wish.

LILYUM FOR OUTDOOR CULTURE (An Amateur).—The culture of Lilyums in the open border is very simple, they only requiring to be planted about 4 inches deep in rich, deep, well-drained soil, adding to the soil peat or leaf soil or both, with a liberal dressing of dung and sand, the latter in goodly quantity if the soil be heavy. A few kinds suitable for the open borders are—*L. Browni*, *bulbiferum*, *candidum*, *colchicum*, *chalcodictum*, *longiflorum*, *martagon*, *pulehallum*, *superbum*, *tenniflorum*, *tigrinum*, and *tigrinum splendens*. Both *L. auratum* and *L. lancifolium* var. *eximium* well outdoors in all but very cold situations.

GOOD AND CHEAP GLADIOLI (Idem).—Oracle, Flavia, Queen Victoria, Emile, Eurydice, Félicien David, Sir William Hooker, Le Titien, Milton, Racine, Lord Byron, and Stephanoen.

VINES UNFRUITFUL (Old Subscriber).—The time you name, 9 o'clock, for giving air, is not early enough, and is sufficient to account for the scorched leaf sent us. A little air should be left on all night whatever the weather may be, and it should be increased when the thermometer indicates 78°, which certainly will be attained before nine, and air admitted as occasion requires to prevent the temperature rising above 80° to 85° without full air, and it should be reduced at 80°, and at 78° the house closed, with the exception of little air left on constantly, which will prevent scorching of the leaves or scalding of the berries. The side shoots, if so thick as you describe, will be sufficient to account for the unfruitfulness; reduce them at once to 15 inches apart on each side of the rod. Stop the shoots at the sixth leaf, which will keep the shoots and leaves from overlapping; no leaves other than those removed by stopping or removing laterals to be interfered with. The charged refuse may be obtained by making a fire and placing upon it any refuse you may have at command, as garden refuse, trimmings of trees, rough suits of grass with some soil adhering, taking care that it only



smoulder, and not blaze or break through, covering it with the sods you propose using, which will do them no harm but good, and when it is charred through put out the fire. The top 8 inches of the pasture, not the "top spit," will be suitable for the border. The manure for the border should be half-decayed, or better fresh, with all the straws practicable removed. There is no need to thatch the border, a covering of leaves and littery manure may be given to protect the roots from frost, the littery part being removed in April and the short left.

**POTATO DISEASE—INSECTS** (H. N. O. Mallow).—The black ova sent have certainly not the slightest connection with the Potato disease. Their presence on the Potato root is accidental.—L. O. W.

**ACALIAS MAKING FRESH GROWTH** (T. W. L.).—Whilst making fresh growth, and until that is complete and the buds formed, they require to be kept close and moist. A temperature of 60° to 65° at night, and 70° to 75° by day, with a rise from sun heat to 80° or 90°, air being admitted moderately, and the plants shaded from bright sun. The pit would be more suitable for the plants than a greenhouse until the growth is made and the buds set, after which they should have air more freely, and the shading be gradually withdrawn. When hardened off they are best in an airy house, and shaded from bright sun.

**GLASS FOR CAMPELLIA HOUSE** (Solo).—Rough plate glass a quarter of an inch thick would do away with the necessity for shading; or plate glass ground on one side answers perfectly, the ground side being placed inside, and the smooth or unground side outside. If the roof be already glazed with clear glass you may give an efficient shading by painting the inside with a wash formed of skim milk and whitening of the consistency of whitewash. It will last good until the close of September, after which it may be washed off, shading not being required in winter.

**POPPIES** (A Lady in Cheshire).—There is a number of herbaceous kinds, but none corresponding to the one you describe. The Great Scarlet Poppy (*Papaver bracteatum*), with flowers 9 inches across, is grand; and so is the Iceland Poppy (*P. nudicaule*), with yellow flowers; but there is no perennial with the flowers approaching your description. It must be an annual, and its appearing twice in the same border and place two years consecutively is no proof of its perennial character, as they produce themselves very freely from self-sown seeds. It is not usual for them to appear year after year. We have known a bed of French Poppies reproduce itself for a number of years, and the identical kind you name we have had year after year, in a plot of Seakale the last year, and not a plant in the time has been allowed to seed; hence they have arisen from seed previously existent in the soil in a dormant state. It is the Peony-flowered, which you may obtain in ten colours. The Carnation Poppy may be had in twelve colours, treating them as hardy annuals. Fine indeed are such plants for shrubbery and herbaceous borders.

**DOUBLE PYRETHRUMS** (J. B. Nottingham).—Propagation is effected by division of the plants when they are beginning to grow, each slip or division being removed with a portion of root and planted in a shady border of light soil, and watered well established. More generally, however, cuttings are made of the growing shoots, and especially those situated at the base of the plants, having two or three joints, and inserting two-thirds the length of the cuttings in sandy soil in a shady border, and covering with a handglass.

**BEDDING GERANIUMS** (F. J.).—Inserting the cuttings in large pots half filled with compost is a novel idea, and beyond that has nothing to recommend it. Four to six cuttings may be wintered quite well in a 44-inch pot, potting them off singly in March. Better than pots where room is an object is to insert the cuttings in boxes, and 1½ inch to 2 inches apart, potting-off in February if you have heat, in March without it. Very good plants may be had either way, and very little inferior to those grown during the winter in pots singly.

**WASPS' NEST UNDER ROOM-FLOOR** (A. B.).—If you cannot reach the wasps' nest under the floor of your dining-room to destroy it by burning or otherwise, your plan of closing the gratings by which they enter, and thus starve them to death, is the only which we think can be safely resorted to. Prevent them from getting food outside and they will perish.

**INSECTS** (Lettice).—We think it very unlikely that you will be able to keep your south-of-England Glow-worms alive and breed them in Co. Antrim, Ireland. They feed on snails, slugs, and small worms.—L. O. W. We should put them in a garden and leave them to their own instincts.

**NAMES OF TREES** (O. W. M.).—The large leaf is the Variegated Sycamore (*Acer pseudo-platanus albo-variegatum*). The other is also an *Acer*, probably *Opulus*, but a smeared leaf is not sufficient to enable us to identify it correctly.

**NAMES OF FRUITS** (J. P. Allan).—It is the Flemish Cherry.

**NAMES OF PLANTS** (D.).—1, *Limonanthus Douglasii*; 2, Too withered (*J. W. L.*).—*Thalictrosum aquilegifolium*. (*A. Z.*).—1, *Lonicera japonica*; 2, *Sedum Sieboldii*; 3, Too shrivelled; 4, *Achimenes* sp. (*E. J. S.*).—1, *Polypodium aureum* var. *aristatum*; 3, *P. appendiculatum*; 4, *P. (Goniophlebium) subauriculatum*; 2, *Salagheia cuspata*; 5, *Pteris quadricarita*; 6, *Asplenium bulbiferum*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### CHAPTER 2.—FAVERSHAM.

44, PRESTON STREET, this time is our destination, and close to the station we found it. How we envied Mr. Dring who can throw a stone almost into the parcels office. We who have to go close on two leagues to send off a basket of eggs or fetch a bird from the station, certainly did wish we were a little nearer when we saw how conveniently our friend was situated.

Mr. Dring is an old friend of ours. He was almost the first friend in the fancy we ever knew, and though that was close on half a score of years ago, we never were able somehow to see the Houdans and Crève-Cœurs in their own Kentish home till we planned this visit. Mr. Dring is most assuredly one of those who does wonders in a small place. Those who see his name at

show after show winning cups and prizes can have no conception that only a back garden and an enclosed yard are his poultry premises. Surely if they did they would cry, "Let us go and do likewise," for certainly Mr. Dring holds a proud and prominent place in the poultry world arena.

A right hearty welcome we found awaiting us from both Mr. and Mrs. Dring, for Mrs. Dring is as "far gone" as her husband; in fact, Mr. Dring is proud to be able to tell everyone that a great part of his success is due to his good lady. When he is away amid the barrels of sparkling bitter beer, brewed from the finest East Kent hops, she is feeding the "coming K's" on every conceivable kind of tit-bit, or making some dainty dish for a promising brood of early chickens, or administering minute and frequent doses of "paste" to a Crève cook who is off his feed, or chopping-up green meat—making savoury salads in fact for the growing birds. Yes, Mrs. Dring is an enthusiastic fancier, and a knowing one. We heard once how she saw a Houdan cock in a far distant farm homestead, and quickly detecting its merits took home the trophy to her husband, which went afterwards the round of the shows, bringing in first prizes and cups *ad libitum*. Mrs. Dring on this occasion, too, was up to the mark, for she first found its pedigree, and so knew she would be in no way sulling the fair honour of the birds she had left behind her. All these things does Mr. Dring's good lady do. At the Palace she is as well known as he is, for basket in hand she goes round distributing chickweed and watercress, not only to their own birds but to any she sees in need of it. Truly a thorough fancier is Mrs. Dring!

44, Preston Street, is a corner house in the street. It has behind it what would be an ordinary-sized town garden. In the centre of this is a piece of green, and round it are the runs. The garden plots have long ago gone, they melted one by one into the chicken runs as the fever grew fiercer, and when we went there it was all "establishment." The houses and yards were as clean as this paper. They were a treat to see, and, of course, this is a great reason why Mr. and Mrs. Dring are so successful. We saw champion Houdans and Crève cooks in little houses, who took turns for a promenade on the garden green. The water for them was clear, their houses all sanded down with clean sparkling sand and pounded sea shells. We saw a long run going down two sides of the garden almost full of Crève hens. There were winners there at all the best shows. We noticed one pair especially, perfect beauties, huge in crest, black as jet, and with bodies like brave Coloured Dorking hens. They matched so well it seemed a pity to send them out separately. Every foot of space in this garden was made the most of. We even saw a trio of cockerels living in the summer house. This was evidently the last place given up to the birds, and we can imagine even our enthusiastic friend here giving a shiver as he saw his smoking snuggerly also given-up to the Frenchmen. We next crossed a road close to the house and found a garden which Mr. Dring hires, this was also wholly given up to the birds. The houses here were large and commodious and scrupulously clean. The runs were a fair size, and were covered nearly over with broken and pounded sea shells, and the birds seemed to thrive marvellously in them. There were birds put-up for breeding when we saw them in two of them, and the others were full of cockerels and pullets ready for the show-pen or the purchaser. We noticed one or two white birds which looked very striking among the coloured. These were bred from perfect winning specimens, and afford another instance of how the truest-feathered birds throw chickens different in plumage to themselves.

When we went indoors we were regaled on cold boiled Houdans, and delicious it was. If it ever comes to our lot to breed birds for the table we shall give Houdans the first turn. We never remember eating chickens with such delicate meat or of such fine flavour. Mr. Dring showed us, too, his cups—and a beautiful collection they were—each one looking as bright as if it had that moment been turned out of Elington's. We were, as old friends, privileged persons, for we were shown the account book; and though we will not divulge one line of that well-kept ledger, still we must say we were amazed to see how little Mr. Dring asks for his winning and stock birds. Really the birds seemed to us to be given away; but Mr. Dring assures us he finds it by far the best way to sell a good bird at a fair price, for the same customers then keep coming again. And certainly time after time we saw in that ledger the name of the same purchaser occurring, and that being, too, of a well-known exhibitor; so we are inclined to think Mr. Dring's method of dealing a good one.

Mr. Dring is fortunate in having a friend near him who lives in the country, and who frequently allows a few birds to be sent to him for fresh country air. This must be a great boon, for when a bird droops or ails from any cause nothing affords such a good "pick-me-up" as a run in a rich country field; and we can imagine even that Mr. Dring has often cause to thank his friend in the country for some small portion of his successes.

When we left, our worthy host drove us to Ashford, and the drive was most beautiful, passing the famous Eastwell Park with its fine undulating grounds. We carried away the recol-

lection of a most happy time, and were delighted to have had the opportunity of seeing our old friend's French people on their own dunghills.—W.

## BATH, WEST OF ENGLAND, AND SOUTHERN COUNTIES SOCIETY.

THE usual Council Meeting of this Society was held at the Grand Hotel, Bristol, on July 27th.

THE CROYDON MEETING.—Mr. Herbert Williams, as chairman of the Finance Committee, brought up a statement of the receipts at the recent annual meeting, and concluded by asking the sanction of the Council to the payment of prizes and other claims to the amount of £8059. The several proposals having been seconded were carried unanimously. It transpired in the course of the proceedings that although a loss of several hundred pounds was incurred by the Croydon Meeting, the Society will not have occasion to draw on its funded capital.

HARFORD MEETING.—With a view to the adequate encouragement of Channel Islands cattle at the Hereford Meeting, 1878, an addition of £100 was made to the amount granted for stock at the Bristol Meeting, thus raising it in the aggregate of £1800. The amount allowed to Stewards of poultry was increased to £225, with a view to offering the additional inducement of cups for Pigeons. To the department of horticulture £180 was allotted

## OIRENCESTER SHOW OF POULTRY, &c.

JULY 28TH, 29TH, 30TH.

MR. DARBY must be congratulated upon a most excellent Show, both as regards quality and numbers. We understand that a difficulty arose in procuring a Judge, when at the last minute Mr. John Martin was secured. The Committee will do well another year to arrange this matter earlier, and moreover advertise the Judge's name, that exhibitors may enter with confidence. In this instance the awards were not all satisfactory. The Show was held in a fine tent, Mr. Billett managing. The prize cards were a nice feature, being designs of Mr. Long's; the classes all illustrated on the face.

In *Light Brahmas* first were fair chicks, good in leg-feather, but by no means so large or so massive in shape as we have seen Mr. Haines show this season. The pen was also awarded the cup for the section over Dark Brahmas, Cochins, Dorkings, and Game. In our humble opinion either the first or second Buffs, the first Whites, or the first Dorkings were infinitely superior, and the most minute scrutiny failed to show us the justice of the award. Second were good old birds, but given to the exhibitor's worst of three pens; Mr. Bloodworth's No. 10 being very nice, the hen a beauty. Darks were a poor lot. First a big cock and fair hen; second a nice hen and a tallish big-combed cock of good colour. The best cock was 19 (Long), but the hen very poor. Buff *Cochins* were a grand class. First very rich colour; hen very good. Second rich, but a trifle square in tail. The first Whites were excellent in colour, shape, and feather; second rich Partridge. Black cocks were poor, but the hens fair. The first *Dorkings* were very fine, especially the hen; second a large cock, but poor hen. *Game* were not good. First a rich-coloured Black Red, not stylish enough; second a fair Brown Red. The first *Duckwing* was very high in tail, bad in colour, and badly dubbed; either of the Piles were decidedly preferable, being capital in colour and style, though their tails were broken; but the second was withheld from better birds than the winner. *Spanish* were poor. First a nice hen and fairly good cock. In *Gold-spangles* first was a neat cock and poor hen; second a moderate cock, with a hen of no merit whatever. The best pair were unnoticed, the cock being bare on his head. In *Silver-spangles* the first cock was a nice bird but very yellow, faulty in comb, and a little white in face; second a capital hen. 60 (Carr) were promising chicks. 63 (Long) was the best cock, but not so good a hen. In *Gold-pencils* the first cock had a good head, but no other qualities; the hen was better. Second a far better cock. Mr. Carr's was also a better cock, but not so neat in head. *Silver-pencils* were poor. In *French* first was a nice Crève cock with a poor hen. They took the section cup away from *Spanish* and *Hamburghs*. Second were Crèves, the cock small in crest. Mr. Lane's *Houdans* as a pair were the best of the lot, good in comb, colour, size, and head, but unnoticed. *Game Bantams* were poor. First Black Reds, fair; second neat Piles. The first *Silver-laced* were very fair; second moderate Blacks; a pen of capital White chicks being unnoticed. In the Variety class first were Black *Hamburghs*, second the same, third White *Minorcas*, fourth *Silver Polands*; the hen a fair one, but none of the *Polands* were of the quality we see further north. The *Duck* classes were very small, and the quality nothing extra. *Geese* numbered no less than twelve pens, but Mr. Derry's two pens did not put in an appearance, or he must have won. The first was a Grey and second White; the latter the better bird. *Bobbies* numbered fifty-seven in four classes—a good entry. *Lops* were not good, a Black winning first. In *Himalayas* first

was very good in nose, feet, and ears; second pressing close. In *Silver-Greys* first was grand all over; second dark in face. Messrs. Hacketts should have taken second honours with their very nice Rabbit. In the Variety class first and second were very well-woolled Angoras, and highly commended (Hackett) a nice Belgian hare.

In *Pigeons* the first Carrier was a good Dun; second good in eye-wattle. *Dragoons* were very numerous, 160 (Yardley) being our fancy; the first being, however, a nice bird, as was the second, although a little slight in beak. 166 (Woods) was a capital bird, unnoticed. In *Fantails* first and second were nice Blues, as was 172 (Yardley). Antwerps were easily won by Mr. Yardley with a Dun and a Red Chequer, nothing else approaching them. *Magpies* were very numerous and good. We thought the winner's highly commended pen No. 205 the best. In *Owls* first and second went to a nice White African and an English Silver, Mr. Vander Meer's Whites being coarse. In *Tumblers* first was a good Almond, second moderate ditto, a grand Kite being highly commended. In the Variety class first was a good Barb, second a very fine Runt. This was a very large but decidedly weak class.

There were a few rich Cayenne Norwich *Canaries*, and two or three good Mules. With these exceptions cage birds were decidedly a poor lot.

**BRAHMAS.**—Light.—1 and Cup, T. A. Dean. 2, J. Bloodworth. Dark.—1, Rev. G. W. Joyce.

**COCHINS.**—Ornamental or Buff.—1, C. Bloodworth. 2, J. Bloodworth. Any other variety.—1, C. Bloodworth. 2, B. Radcliffe.

**DORKINGS.**—1, T. O. Burnell. 2, H. Feast.

**GAME.**—Black-breasted and other Reds.—1, E. S. Godsell. 2, H. Feast. Any other variety.—1, E. F. Woodman.

**SPANISH.**—1, Mrs. E. Alsop. 2, G. Hanke.

**SILVER-SHANKS.**—Gold-spangled.—1, H. Feast. 2, J. K. Harris. Silver-spangled.—1, J. Carr. 2, H. Feast. Gold-pencilled.—1, G. Parkham. 2, J. Long. Silver-pencilled.—1, H. Feast.

**FRENCH.**—1 and Cup, J. S. Maggs. 2, H. Feast.

**BANTAMS.**—Game.—1, J. Mayo. 2, P. F. Le Saux. Any other variety.—1, G. Holloway, jun. 2, D. O. Wingfield.

**ANY OTHER VARIETY.**—1, J. Long. 2, T. A. Wright. 3, J. Croote.

**SELLING CLASS.**—1, T. A. Dean. 2, J. Bloodworth.

**DUCKS.**—Draught.—1, J. S. Maggs. 2, T. O. Burnell. Aylesbury.—1, 2, and Medal, E. Bowley. Any other variety.—1, Mrs. H. J. Bailey. 2, G. S. Sainsbury.

**GESE.**—1, G. Hanke. 2, A. M. Murphy.

**TURKEYS.**—1, W. Slatter, sen.

## PIGEONS.

**CARRIERS.**—2, W. D. Richardson.

**DRAGONS.**—Blue or Silver.—1, G. S. Prentice. 2, E. Woods.

**FANTAILS.**—1 and 2, A. A. Vander Meer.

**ANTWERPS.**—Short-faced.—1 and 2, E. Yardley.

**MAGPIES.**—1, E. F. Bailey. 2, G. J. Dewey.

**OWLS.**—1, A. J. Barnes. 2, E. F. Bailey.

**TUMBLERS.**—1, E. Yardley. 2, A. A. Vander Meer.

**ANY OTHER VARIETY.**—1, H. Yardley. 2, A. Miles.

**SELLING CLASS.**—1 and 2, H. Yardley.

## RABBITS.

**LOP-EARS.**—1, J. Turner. 2, E. Bright, jun.

**HIMALAYAN.**—1, H. E. Gilbert. 2, J. Bloodworth.

**SILVER-GREY.**—1, Miss Mortimer. 2, J. P. Bartlett.

**ANY OTHER VARIETY.**—1, H. Thorp-Hicks. 2, C. Arthur.

## CANARIES.

**NORWICH.**—1 and 2, E. J. Pope.

**IRIZIAN.**—1, Miss Bridges. 2, E. Barnard.

**ANY OTHER VARIETY OF CANARY.**—1, W. Smith. 2, J. Crew.

**GOLDFINCH MULE.**—1, G. E. Russell. 2, J. Benson.

**ANY OTHER VARIETY OF MULE.**—1, W. Smith. 2, G. Parrott.

**SELLING CLASS.**—1, G. E. Russell. 2, F. Matthews.

## FOREIGN BIRDS.

**PARROT OR COCKATOO.**—1, Miss Bridges. 2, G. Parrott.

**LOVE BIRDS OR PARAKEETS.**—1, J. Bloodworth.

**ANY OTHER VARIETY OF FOREIGN BIRDS.**—1 and 2, E. Barnard.

## BISHOP AUCKLAND SHOW OF POULTRY, &c.

THIS meeting was on the 27th ult. in the cricket field. Although the prizes in poultry had been greatly enhanced in value, yet the number of entries were little more than half of those of last year, while the Pigeons and Rabbits showing an increase of fifty or thereabouts. *Game* were poor with the exception of a few birds, but the *Spanish* were very good. *Cochins* were a splendid lot, all the awards going to one yard, and also the extra prize. *Brahmas* good and well placed. *Hamburghs* were moderate classes, while the winners in some of the classes were as good as can be, the first in Gold and also in Silver-spangles particularly. In *French* were four pens, and *Polands* one of White-crested Blacks. Chickens brought eleven pens; the first good but not forward Buff *Cochins*; second *Dorkings*, and extra second a good pen of *Light Brahmas*. The Selling class was a mistake, no price being specified at which the exhibits could be claimed. *Turkeys* were very large and good, and the first-prize White *Geese* a grand pair. *Aylesburys* in *Ducks* were allowed a class to themselves, while all the rest were huddled in one class. Surely the list needs remodelling. Medals or the amount in cash of £2 and £1 were offered for birds in the county of Durham, but as separate entries had to be made in each class only five entries put in for the £5 thus offered.

*Pigeons* as seen before were a much better show. Carriers seventeen pens, with some good birds, and the winners Black. Pouters, the winners Blue. In *Tumblers* first and third were *Almonds*, and second a nice Black *Mottle* if clean, but now in

wretched condition. The first Almond had a most natural head: it was, if you please, but nobody knew unless he has something

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T. Marsh.

Rev. H. Harbord. Duck-

F. Marsh. *Ducklings*.—1

L. S. S. Woodgate. 2 and

Camden.

Marsh. *Extra Pricers* by

J. E. S. Woodgate.

CANARIES.—1, C. A. Ware. 2 and 3, H. Bostington. 4 and 5, G. Hoadley. Birds of any other variety.—1, R. S. S. Woodgate. 2 and 3, G. Farmer. RABBITS.—1, G. Hannam. 2 and 3, D. Dalbe. 4, Lady L. Nevill. CATS.—1, 2, and 3, G. Hoadley. 4, H. Stowel. 5, F. Farmer.

### SHEWESBURY SHOW OF POULTRY, &c.

THIS Show was held on July 29th and 30th in connection with the Agricultural Society's Meeting. We expected to find many more entries, for the prize list was liberal and the entry fee low. The Committee, moreover, was composed of men all highly thoughtful of the fancy, and this has great influence with exhibitors. The weather has been very trying—wet days, cold winds, and scorching suns have followed, which do not keep the old birds in the best condition; we think the small number of entries, considering the liberality of the schedule, is to be attributed to some such cause.

Of *Dorkings* there were thirteen pens of Coloured; the first pen well deserved their position; the second contained a good hen, but cock only moderate; the third we could not agree with. We should have chosen three or four pens before that for the third place. In the next class Mr. Walker won the cup; his birds were Silver-Grays, and looked well. Second went to Whites, catalogued as five months old; third again going to fine Silver-Grays of much quality. *Cochins* were good classes. The first Buffs very fine, and the colour capital for the time of year; second and third also very good birds. 27 (Darby), empty; 36 (Tindal), a fair pen. In Partridges Mr. Tudman took all the three prizes and Mr. Brooke's cup, and probably deserved these honours. In the next class the first were Whites, containing the cock which has appeared so often of late. The second were good Blacks—i.e., good for Blacks; and third went to wretched Whites. We could see nothing in them. 44 (Woodgate) were in splendid condition, but look rather yellow. 46 (Tindal) a good pair; cock also yellow, but hen fine. *Brahmas* were two good classes, and were especially conspicuous for good chickens. The Rev. J. D. Peake's was a beautiful pen. We wonder if either this gentleman or his brother will produce pullets equal to what they did last season. The old birds in this class were mostly out of feather. In Light *Brahmas* all three prizes went to chickens of the year, but we did not quite like the awards here. The cup pen we believe came from Mr. Dean's yards very lately. *Games* were good classes, and we thought the cards were placed on the proper pens. The birds were principally adults, and many of them we have commented on before. *Spaniards* were moderate. They were not at their best, but we think we liked the third-prize pen as well as any. Mr. Beldon's second-prize pen were, however, fine in face. 186 (Alsopp) contained a good hen. *Hamburgs* were good classes. The Spangled only had one class, neither did the Pencilled. We do not doubt but that this prevented many from entering. The Spangled made the largest class, and were, perhaps, the best on the whole. Mr. Judson scored another triumph with his Golden-pencilled hen. She must be a perfect mine of wealth to him. There were only six pens of Black *Hamburgs*, but these were good. We suppose even Shropshire is too far for the Yorkshire and Lancashire people at this time of year—even when the Society offers them £10 10s. in prize money, and Mr. Darby offers a £8 8s. cup in addition for the best pen—to send and have a shot. *Frenchs*, too, were not large classes. The names of the winners show the quality of the exhibits. Mr. Lake showed a good pen of early Houdan chickens. We fear the Crève comb is daily becoming more common in the Houdan, and consequently believe the two breeds must be continually crossed even now. Certainly it is remarkable that nearly every French breeder keeps both varieties, and so the cross can be easily managed. *Malays* came thirteen pens strong, and a nice lot they were. A pen of six-months-old chickens won Mr. Tudman's cup, and deserved it; they soon changed hands for £7 7s. Miss Brooke's, too, were a good pair, and cheap at catalogue price. The old birds were beginning to look seedy in feather. The Variety class was very fine. The winning Silver *Polands* were a most magnificent pen, and are, we should almost think, the finest pair in existence. Second went to very beautiful White-crested Blacks; they were in good feather and splendidly shown. Mr. John Martin must have worked well at their crests, and they did him justice. Third good *Leghorns*. Highly commended, 198 (Judson), good *Silkie*. 201 (Darby) charming baby *Silkie*. Game *Bantams* only had one class. Mr. Hall's Reds were a smart pen; second going to capital Duckwing chickens; third fair Black Reds. In Variety *Bantam* class beautiful *Laced* were first and second, 219 (Greenswell), good Blacks, being very small, and we believe the Croydon winners. We cannot too emphatically speak against the folly of classing all *Bantams* but Game together; it is most unfair to Judge and exhibitor. 220 (Maye) and 218 (Beldon) good Blacks. *Turkeys*, *Geese*, and *Ducks* were all good classes. Mr. Walker sent a grand lot.

*Figeons* were only small in number, but the quality was good. The first Tumblers were good *Almonds*, and second *Agates*. In *Carriers* first and second were excellent Blacks and Duns. In *Fantails* the whole were of unusual excellence, as the names

will suggest. Nuns were also good; first Black, second Red. In *Bards* first and second were splendid; very highly commended (Yardley), capital *Yellows*. The first and second *Antwerps* were beautiful Short-faced birds. *Dragoons* were good, both capital Blues. *Pouters* were decidedly poor; first Blue, second White. *Owls* were fair, the winners both White. In the Variety class first were very good *Archangels*, second very fine *Bunts*, fair *Turbits* being highly commended.

*DORKINGS*.—Dark.—1, J. Walker, Rochdale. 2, T. Parlett, Galleyswood, Chesham. 3, Mrs. Bards, Gwynedd Barrow. 4, Rev. E. Bartrum, Berks. 5, W. H. Crabtree, Levensham. 6, H. Shaw, Oswestry. 7, A. Darby, Shrewsbury. 8, Any other variety.—1 and Cup, J. Walker. 2, T. C. Burnell, Micklethorpe. 3, O. E. Crosswell, Basshot. 4, Countess Dartmouth, Wolverhampton. 5, C. Countess Dartmouth. 6, O. E. Crosswell.

*COCHINS*.—Cinnamon and Buff.—1 and 2, H. Tomlinson. 3, Mrs. E. Alsopp, Worcester. 4, T. Groves, Shrewsbury. 5, B. Gwynn, Wem. 6, Mrs. A. Tindal, Aylesbury. 7, Brocks and Partridge.—1, Cup, 2, and 3, T. E. Burdman, M. W. H. Crabtree. 4, Brocks. 5, Any other variety.—1, W. Whitworth, Manchester. 2, W. Badger, Little Ness. 3, H. Tomlinson. 4, Mrs. A. Tindal. 5, G. Forty, Shrewsbury. 6, W. Whitworth. 7, R. S. S. Woodgate, Farnbury. 8, G. Forty. 9, T. S. Tones, Bridgenorth.

*BRAHMAS*.—Dark.—1 and Cup, Rev. J. D. Peake, Laleham Vicarage, Chertsey. 2, T. F. Andell, St. Helena. 3, W. H. Crabtree. 4, E. Kendrick, Jun., Lichfield. 5, E. Pritchard, Wolverhampton. 6, Horace Lingwood, Needham Market. 7, Pease, Swans. 8, R. E. Wood, Ulkester. 9, Light.—1 and Cup, H. East. 2, 3, and 4, T. A. Dean, Marden. 5, Mrs. H. Poulkes, Montgomery. 6, Haines, Palgrave, Diss. 7, T. A. Dean. 8, Mrs. A. Tindal.

*GAMES*.—Black-breasted Red.—1, J. Mason, St. John's, Worcester. 2, E. Winwood, The Grove, Worcester. 3, H. Horton, Malvern. 4, P. A. Beck, Welshpool. 5, Brown-breasted Red.—Cup and 1, H. E. Martin, Fakenham. 2, G. F. Ward, Wrenbury. 3, W. Farrin, Nantwich. 4, J. E. Prinos, Nantwich. 5, R. Ashley, Nantwich. 6, D. H. Owen, Oswestry. 7, T. Burdman, Whitby. 8, J. Masey, or any other variety.—1, F. Ward. 2, W. C. Phillips, Worcester. 3, J. Masey. 4, E. Bell, Burton-on-Trent. 5, D. W. J. Thomas, Brecon. 6, R. Ashley, E. Holland, Overden.

*SPANISH*.—1 and Cup, S. L. Edwards, Tarporley. 2, H. Beldon, Golestock, Bingley. 3, A. Darby. 4, Mrs. E. Alsopp. 5, D. M. Mills, Newport Pagnell.

*HAMBURGERS*.—Gold or Silver-spangled.—1, T. Blakeman, Wolverhampton. 2, J. Robinson, Garstang. 3, H. Beldon. 4, T. Dean, Keighley. 5, Carr, Swans. 6, J. Long, Bromley Common. 7, H. Beldon. 8, H. Beldon. 9, H. Beldon. 10, J. Long, or any other variety.—1, F. Peckham. 2, H. Poulkes. 3, and 4, H. Beldon. 5, Cup, and 6, H. Beldon. 7, J. Long. 8, J. M. Kivert, Wem. 9, C. Evans, or any other variety.—1, F. Lake, Sittingbourne. 2, W. Dring, Faversham. 3, W. H. Crabtree.

*HOUDANS*.—1, W. Whitworth. 2, F. Lake. 3, R. B. Wood. 4, S. W. Thomas, Swans. 5, J. K. Fowler, Aylesbury. 6, E. B. Wood.

*MALAYS*.—1, Cup and 2, Rev. H. Fairlie, Maybole. 3, Miss A. Brooke, Shrewsbury. 4, E. Hawkins, Seacombe. 5, H. Beldon. 6, A. Darby (Poland). 7, R. E. Fowler, Aylesbury (White Leghorn). 8, W. B. Etches, Whitby. 9, Scotch Grey. 10, J. Judson (Japanese Silkie). 11, A. Darby (Silkie). 12, J. J. Scott, Llanstydham (Golden Poland). 13, H. Beldon.

*BANTAMS*.—Game.—1, G. Hall, Kendal. 2, A. Darby. 3, G. F. Ward. 4, R. J. Hartley, Altrincham. 5, Any other variety.—1 and Cup, M. Leno, Dunstable. 2, Rev. J. Hill, Shrewsbury. 3, J. W. Lloyd, Elington. 4, W. Richardson, York. 5, H. Beldon. 6, O. E. Crosswell. 7, H. Beldon.

*TUMBLERS*.—1 and Extra. Rev. N. J. Ridley, Newbury. 2, E. Kendrick, Jun. 3, W. B. Etches. 4, J. Walker. 5, J. C. L. Rocks, Aston-on-Clan. 6, Grass.—1 and Extra. R. E. Fowler. 2, J. Walker. 3 and 4, T. Mills, Seacombe, Birkenhead.

*DUCKS*.—Aylesbury.—1, J. K. Fowler. 2, S. E. Harris. 3, J. Walker. 4, J. Walker. 5, G. Gulliver, Aylesbury. 6, J. K. Fowler. 7, J. K. Fowler. 8, J. K. Fowler. 9, J. K. Fowler. 10, J. K. Fowler. 11, J. K. Fowler. 12, J. K. Fowler. 13, J. K. Fowler. 14, J. K. Fowler. 15, J. K. Fowler. 16, J. K. Fowler. 17, J. K. Fowler. 18, J. K. Fowler. 19, J. K. Fowler. 20, J. K. Fowler. 21, J. K. Fowler. 22, J. K. Fowler. 23, J. K. Fowler. 24, J. K. Fowler. 25, J. K. Fowler. 26, J. K. Fowler. 27, J. K. Fowler. 28, J. K. Fowler. 29, J. K. Fowler. 30, J. K. Fowler. 31, J. K. Fowler. 32, J. K. Fowler. 33, J. K. Fowler. 34, J. K. Fowler. 35, J. K. Fowler. 36, J. K. Fowler. 37, J. K. Fowler. 38, J. K. Fowler. 39, J. K. Fowler. 40, J. K. Fowler. 41, J. K. Fowler. 42, J. K. Fowler. 43, J. K. Fowler. 44, J. K. Fowler. 45, J. K. Fowler. 46, J. K. Fowler. 47, J. K. Fowler. 48, J. K. Fowler. 49, J. K. Fowler. 50, J. K. Fowler. 51, J. K. Fowler. 52, J. K. Fowler. 53, J. K. Fowler. 54, J. K. Fowler. 55, J. K. 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ful exhibitor as J. K. Fowler is placed second. *Game fowls* were numerous, but not superior. After mentioning the winners *Game Bantams* were poor; but the any variety Bantams contained several good pens, especially the first and second prize-takers. The following is a list of the awards:—

**DORKINGS.—Coloured.**—1, J. K. Fowler, Aylesbury. 2, Mrs. B. Radclyffe, Hyde. 3, T. Gough, Buckingham. *Any other variety.*—1, E. Woodford, Kildington. 2, J. J. Terry, Buckingham.

**COCHINS.—Cinnamon or Buff.**—1, Mrs. B. Radclyffe. 2, W. W. Woodin. 3, J. K. Fowler. *Any other variety.*—1, J. K. Fowler. 2, A. F. Faulkner, Thrapston. 3, T. M. Derry, Gedney, Wisbeach. *Ac.* J. K. Fowler; 1, Rodwell, Maldenmoreton. *Any variety.—Cock.*—1, T. Atterton. 2, J. K. Fowler.

**BRAHMAS.—Light.**—1, F. Haines, Palegrave, Diss. 2, T. Bear, Aylesbury. 3, J. Terry. *Dark.*—1, J. K. Fowler. 2, H. Feast. 3, H. Wyman, Conington. *Ac.* M. Leno, Dunstable. 4, F. White, Leighton Buzzard. *Any variety.—Cock.*—1, J. K. Fowler.

**GAME.—Black and Brown-breasted Red.**—1, E. Winwood, Worcester. 2, S. Field, Ambroden, Leicester. 3, A. C. Swain, Redditch, Buckingham. 4, J. J. Jeken, Eitham. *Any other variety.*—1, E. Winwood. 2, H. Feast. 3, W. S. Ridge, Thornborough. *Any variety.—Cock.*—1, S. Field. *Ac.* A. C. Swain; G. Fitz-Herbert. 4, J. Jeken.

**SPANISH.**—1, D. M. Mills, Newport Pagnell. 2, E. Winwood. 3, C. Davies. **HAMBURG.**—*Gold and Silver-spangled.*—1, H. R. Platten, Fakenham. 2, H. Pickles, Earsy, Leoda. *Gold and Silver-pencilled.*—1, A. F. Faulkner. 2, H. Feast. 3, H. Pickles. *Any variety.—Cock.*—1, H. Pickles. *Ac.* A. F. Faulkner.

**BANTAMS.—Game, Black and Brown Red.**—1, W. Adams, Ipswich. 2, V. Hamford, Broughton, Upper Norwood. 3, H. Feast. *Any other variety.*—1, M. Leno. 2, W. Mayo, Shalstone. 3, E. M. Southwood, Fakenham. *Ac.* W. T. Hobbs, Buckingham. 4, T. Bradbury, Buckingham. *Any variety.—Cock.*—1, T. Bradbury. 2, M. Leno.

**FAMULAR FOWLS.**—1, J. Bennett, Buckingham. 2, J. Rodwell.

**ANY VARIETY.—Chickens.**—1, J. K. Fowler. 2, W. Wheeler, Buckingham.

**DUCKS.—Aylesbury.**—1 and 2, T. Bear. 3 and 4, J. K. Fowler. 5, J. Bennett. *Brown.*—1, G. Cox, Maldenmoreton. 2, J. K. Fowler. 3, E. Woodford. *Ac.* Rev. M. Withington, Fringford, Leicester.

**GEES.—White.**—1, J. K. Fowler. 2, T. M. Derry. 3, Mrs. B. Radclyffe. *Any other variety.*—1, H. Wyman. 2, Mrs. Osborn, Maldenmoreton.

**TURKEYS.**—1, W. Hawkins, Borton. 2, Rev. E. Withington. 3, J. Bennett.

#### COTTAGERS' CLASSES.

**FOWLS.**—1, B. Coleman, Buckingham. 2, E. Soton, Buckingham. 3, W. Hickman, Gawcott. 4, T. Hands, Buckingham. 5, E. Soton. 6, T. Thomas, Maldenmoreton; J. Gunthorpe, Buckingham.

**DUCKS.**—1, E. Soton. 2, P. Soton. 3, T. Hands. 4 and 5, J. Gunthorpe.

### CLEVELAND SHOW OF POULTRY, &c.

THE forty-second annual Show of the Cleveland Society was held at Guisborough on July 29th in the park and grounds kindly lent for the purpose by Rear-Admiral Challoner. The arrangements for poultry were very good, in fact this is one of the best-managed societies in the kingdom.

Spanish headed the list, and were a fair lot; the *Dorkings* being very good in all particulars. The winners in *Cochins* were good in both classes, in one Buffs, and in the other Whites. The entry in *Brahmas* was good, but with the exception of one pen they were a bad lot. *Game* were a moderate lot; the winners in Reds were of the Brown-breasted variety. Ducks-wings won in the following class, these being good, especially the hens. In single cocks the winners were Black Reds, the first an old excellent-coloured bird; the second better in style, but not equal in colour and rather crooked in breast. Only the first pen and second-prize cock were of any quality in Game; but the following class was very good, first Black, second Silver-laced, and extra second a pair of Nankin Bantams, very good and rare. *Hamburgs* good, old birds winning all the prizes; and in Gold-pencils all were noticed. Silver-pencils a fair lot; Gold-spangled *Hamburgs* good as regards the winners. Silver-spangled good as regards the winners only. The Variety class was very good, first being Houdans, second Malays, extra second Black *Hamburgs*, and third Sultans. *Aylesbury Ducks* were very good in both size and quality of bill; the Rouens good as regards the winners only. In the variety of Ducks the first were Pintail, second Teal, and highly commended Carolinas and Widgeon. *Geese* and *Turkeys* were better than of late years, the former approaching more closely to the specimens of eight or ten years ago, and which seem to have been brought out of the locality.

*Rabbits* had two classes; in the first Lop-eared winning the first, a Fawn-and-White, 22 by 4½; and second a Tortoiseshell, 20 by 4½. In the following class an even-coloured and fairly-silvered specimen of Silver-Grey was first; a Belgian Hare slightly yellow in shade second; and Himalayan highly commended in three cases.

**SPANISH.—Black.**—1, J. P. Carver, Langthorpe. 2, H. Dale, Old Ormesby. 3, E. C. T. Flintoff, Newby.

**DORKINGS.**—1, E. Barker, Stokeley. 2, A. Jackson, Broughton. 3, R. Seath, Conington, Yarm. 4, Lady D. F. Yeoman, Whitby.

**COCHINS.—Cinnamon or Buff or Cinnamon.**—1 and 2, G. H. Procter, Durham. 3, R. Sellers, Swinby. *Any other colour.*—1 and 2, G. H. Procter.

**BRAHMA FOWLS.**—1, J. P. Carver. 2, Miss Jacques, Earsy Abbey. 3, Rear-Admiral Challoner, Guisborough.

**GAME.—Reds.**—1, W. Youngshand, Darlington. 2, W. Bearpark, Ainderby Steeple. 3, G. Carter, Sandhill, Bedale. 4, E. J. Smith, Yarm. *Any other variety.*—1, W. Bearpark. 2, G. Holmes, Great Driffield. 3, T. Potts, Redcar. 4, W. Youngshand. 5, T. Potts. 6, W. Storey.

**BANTAMS.—Game.**—1, W. O. Dawson, Whitby. 2, G. Holmes. *Any other variety.*—1, J. P. Carver. 2, T. P. Carver, Langthorpe. Extra 2, Rev. J. G. Milner, Hamsterley Vicarage. 3, J. Peacock, Old Ormesby; Miss S. C. Fosse, Guisborough. 4, J. Peacock.

**PELTAS.**—1, W. Bearpark.

**HAMBURG.—Golden-pencilled.**—1, T. P. Carver. 2, E. Keenlyside, Aycliffe. 3, B. & G. Kison, Old Ormesby. 4, R. Seath; E. Barker, Stokeley; T. S. Turner, Stokeley. *Silver-pencilled.*—1, E. Keenlyside. 2, W. Bearpark. *Golden-spangled.*—1, E. Keenlyside. 2, T. P. Carver. 3, G. Holmes. 4, R.

Seath; E. Burn, Whitby. *Silver-spangled.*—1, E. Keenlyside. 2, G. Holmes. 3, R. Seath.

**ANY OTHER VARIETY.**—1, Rev. J. G. Milner. 2, Lady D. F. Yeoman. Extra 2, T. P. Carver. 3, Miss E. C. Brown, Middleborough. 4, Lady D. F. Yeoman; 5, Burn. 6, W. Byers, Guisborough.

**DUCKS.—Aylesbury.**—1, F. E. Gibson, Middleton-in-Teesdale. 2, T. P. Carver. 3, G. Holmes. *Brown.*—1, Rev. J. G. Milner. 2, T. P. Carver. *Any other variety.*—1, Rev. J. G. Milner. 2 and 3, T. P. Carver. 4, Rev. J. G. Milner; 5, Burn.

**GEES.**—1, G. Holmes. 2, J. Walton, Aekham, E. R. Dodsworth, Stainton. 3, Miss A. C. Temple, Applebridge, Great Yarm. *Geese.*—1, J. Walton. 2, G. Holmes. 3, Miss Dale, Guisborough; 4, R. Dodsworth.

**TURKEYS.**—1, Miss Kirk, Givendale, Ripon. 2, T. P. Carver. 3, R. Dodsworth. Young.—1, R. Dodsworth.

#### RABBITS.

**LOP-EARED.—Buck or Doe.**—1, J. T. Robinson, Darlington. 2, J. Taylor, Middleborough. 3, G. Knaggs, Borton; C. Stephenson, Middleborough; J. Lint, Farnor Burn.

**Buck or Doe.**—1, E. McKay, Darlington. 2, J. T. Robinson, Darlington. 3, T. Moore, Normansby; C. J. Foster, Middleborough.

JUDGE.—Mr. E. Hutton.

### CAPTAIN HILL'S BANTAMS AND PIGEONS IN THEIR HOME AT EALING.—No. 1.

It is not often that "poor letter H," that much-abused letter, made to be present when it ought not, dismissed also summarily when it ought not—it is not often, I say, that poor H is by accident rightly treated, but it is sometimes. Thus, when on the Great Western the train stops at Hanwell the porters invariably call out "Anwell," but they blunder upon the right name, for there was once a curative spring there known as St. Ann's Well, whence the name of the place. Then, when the same train stops at Ealing, the porters there call out "Healing," they blunder again rightly, for that village was known in olden times for its healing waters, whence its name. One part of the parish of Ealing is known as Castle Hill Park, and has its station of Castle Hill. To that station I betake myself in order to reach the residence of Captain Hill, who has of late gained high honours with his Pigeons, especially his Pouters, having taken first and cup in Blue cocks at the last "Pigeon Derby," the Crystal Palace Show, besides other successes. I knew also that Captain Hill had a very large number of valuable Pigeons, so that very readily I embraced the opportunity kindly afforded of seeing his birds at home.

I reach Castle Hill station one glorious summer morning. The district near is known as Castle Hill, in older times Castle-bear Hill. The chief house of the district, and one which has some historical interest, is Castle Hill Lodge, once the property of the Duke of Kent, father of Her present Majesty the Queen. A picture of it is now before me as it was in the Duke's time; not a first-class mansion, the building being low and not large, but the front pleasing with its central portico with four Ionic columns surrounded by a triangular pediment. This house has long since passed out of royal hands, and the whole neighbourhood became the property of a building speculator, to, I believe, his injury. He formed plans not yet at least realised. Some handsome blocks of houses were finished, some handsome separate houses were built, and the rest of the ground mapped out for building, but not built on. There are walls for gardens, but inside no gardens; gateways to approaches with no approaches, and no houses to be approached. It is easy to point a moral to the man who began to build and had not the wherewith to finish. No doubt it will all come right some day, for there is such a fine air at Castle Hill, and it is such thorough country, though so near London as six miles. Then I stumble over, direct in my way, the foundations of a new church, and people are sure to follow a church, and come at least outside its walls. My short walk is brought to a close, for a handsome villa is before me, with the word "Edina" on its gateposts. "Edina" is the poetic name for Edinburgh, as Burns sings—

"Edina! Scotia's darling seat!  
All hail thy palaces and towers,  
Where once beneath a monarch's feet  
Sat Legislation's sovereign power."

It is a graceful and patriotic thing that a native of Edinburgh should thus name his residence. After a kindly welcome—and I must again quote Burns's poem, for—

"Thy sons, Edina, social, kind,  
With open arms the stranger hail,"

I am after awhile taken to see the birds. These were not close at hand, but some half mile distant, giving one a charming walk down a sloping vale—a gentle slope, where haymaking was going on—that pleasant work, which somehow seems always half play—outdoor work in which children mingle, and girls once a-year join, and think it rare healthy fun, as it indeed it is. Somehow or other walking from Edina through the hay the words of the fine old Scotch ballad would keep coming into my mind and almost to my lips—

"'Twas within a mile of Edinburgh town,  
In the rosy time of the year,  
Sweet flow'rets bloom'd, and the grass was down,  
And each shepherd wou'd his deer."

The scene was somewhat classical, for before me, four miles off and very conspicuous, was the spire of the church of Harrow-on-

the-Hill, suggestive of great names in the world of politics and literature. Passing on the right Castle Hill Lodge before mentioned I near a large lot of buildings, forming two sides of a square—just a right angle—being, in fact, the mews belonging to the villas near; rather a Cockney arrangement for houses so far in the country, where one would suppose each owner would prefer his stable to be near at hand for that after-breakfast stroll into the stable so dear to an Englishman's heart while enjoying full often his matutinal cigar.

On approaching the mews I see on the sunny side troops of Bantams strutting about as only Bantams can strut. These were Captain Hill's, whose long residence in Japan naturally led him to have a taste for the Japanese Bantams. Before me is a black cock (imported) of that breed of a most brilliant lustre. Black, and no mistake, with such flowing sickles and saddle, and with scarcely any legs. I learnt that in Japan the wholly black birds are chiefly prized, and not such as are so frequently shown in England parti-coloured. It is a part of Capt. Hill's plan to keep anything unusual. Thus there is a black cock with golden hackles, bred from Japanese. These used to be seen frequently in England a few years since. Then the birds had thrown a Nankin-coloured hen. Do not these instances throw some light upon the origin of our old English Bantams, and that some of their varieties were imported, and that Bantams may not be such an erroneous name after all? Truly Capt. Hill's Japanese Bantams are very interesting, as being actually birds from Japan. I pass on to find Game Bantams, that last-made English variety of times.

Here, too, among some very correctly-feathered birds, such as good Brown Reds, Black Reds, and some admirable Duckwings, are preserved some odd productions—White Game bred from Brown Reds; very light Wheatears, almost cream-coloured all over, and one quite Cuckoo-feathered, showing that even in the best strains the colours of Game Bantams are not yet fixed, for these were birds from first-class strains. But I must not pause too long among these charming pets, but must proceed to the Pigeons.—WILTSIRE Rector.

#### SELECTION.—No. 2.

There is a species of pluck in some men which prevents them from retracting any statement they have made until an irresistible amount of evidence is brought to bear against them. This is not, I would say, so much from want of manliness as from their firmly believing that they are right, and that no one outside the scientific circle understands anything of their subject. Such has been the case with some of our early as well as late writers on ornithology.

The early writers on this question informed the world that the Stock Dove was the parent of all the varieties of our fancy Pigeons, but by-and-by it was discovered that the Stock Dove was not a Pigeon at all, that it was a true Dove, one of the family of Graspers—that is, a bird which can sit safely and comfortably on the rooking branch of a tree, whereas the Pigeon family are all what I may call flat-footed; they cannot rest on a small round perch, but must have ledges or shelves as their resting places. However, the theory of one original parent being started, it seems it must be kept up, and the small Blue Rock Pigeon of our seacoasts was next pronounced to be the parent of those beautiful and elegant birds we now possess called "fancy Pigeons."

Later writers on ornithology have all, so far as I recollect, supported this theory, and copyists down to the smallest fry of the present day in our country have struck upon the same chord without giving us the history of their experiments or inquiries; and I do often feel annoyed at some of our small copyists persistently drumming this theory into our ears when I have the knowledge that they know nothing whatever about it. They put me in mind of a London policeman whom I asked to direct me to a street I knew to be in his neighbourhood, and who, after a few moments' thought, replied—"I have not a second idea sir." But let us take a calm view of this theory, and what can we or anyone make of it? We are told our fancy varieties of Pigeons can be destroyed by crossing; but what of their production? We have not the most feeble proof nor the ghost of evidence that they are produced from one common parent; and to sum up the whole life of this theory it amounts to, So-and-so thought so, and so do I—a frail and doubtful reed to lean upon, a mere vision of the night which must be dispelled by the light of day, and we as practical fanciers must not sleep to dream,

"For the soul is dead that slumbers,  
And things are not what they seem."

Still our theorists go a step further, and as if to finally clench their theory, they insist that the common doveote Pigeon is a "sport" or descendant of the Blue Rock Pigeon. This I deny, and hope to prove it very shortly in these columns under the title of "The Blue Rock Pigeon." Ornithological writers I think have misnamed this latter bird, and with all my reverence for men of letters in natural history I will venture to give it a new scientific name, the one I think it deserves. But allow me

to presume for the sake of following up this theory that the doveote Pigeon has sprung from the Blue Rock Pigeon. What then? Will anyone come forward and tell us they have bred any one variety from the common Pigeon? or that they ever saw the slightest move towards any one of our varieties now known?

I have visited old doveotes which have stood since before the days of Oliver Cromwell, and where I have reason to believe the descendants of the Pigeons then are there now, but I could see in flocks of hundreds no varieties but in colour, and the oldest inhabitants had never known other than are now seen. But to pursue this theory a step further, is it not common sense to expect that naturalists as well as intelligent Pigeon fanciers should find some, if not all, of our fancy Pigeons in a state of transition from the common Pigeon to the fancy Pigeon now? If not, when did the various developments cease? Further still, we are told that all our fancy Pigeons have descended from the Blue Rock Pigeon; if so, why is it that there are only a select few varieties? If the Blue Rock Pigeon is the parent of all known varieties, we may safely expect a new variety now and then; in fact, varieties *ad infinitum*.

In connection with this take a glance at the history of some of the florists' flowers; with each new spring there come new roses, fuchsias, &c.; each flower springs from one common parent, and many of them so distinct from each other, particularly in fuchsias, that the unlearned in flowers do not distinguish them to be of one family. How is it, then, that we cannot attain to this infinite variety in Pigeons? For two hundred years we have not had one new variety, and for aught I know not one new variety for thousands of years, and with all our knowledge of science, our opportunities and means, we cannot introduce one new variety now. I will admit that as the unknown parts of the world come to be explored we may find some variety now unknown; but when found it will be like those now in our possession—perfect, not in a state of transition.

Having from early life taken an interest in this subject, I have not only consulted books, but Pigeon fanciers of all ages, many of them old men who have long since passed away, and their experience one and all was that no variation had ever been observed in the produce of the common Pigeon except in colour. I have also consulted some of the "doctors" who support this theory, but to my questions I received only evasive answers. Notably among these was the late Sir W. Jardine, with whom I had much intercourse on natural history subjects. He was a firm believer in this theory, but my questions did not suit the constitution of the doctor. When he was pressed for a single example of variation from the Blue Rock, or one specimen in transition, I was put off with, "When you have studied the subject as I have done you will agree with me." I have done so for twenty-eight years since then, and I am still of the opinion that neither the Blue Rock nor doveote Pigeon have any connection with the varieties now known.

Now let us take a glance at the mere cobweb upon which naturalists hang this theory. It is all upon the bars on the wings and tail, and certain spots on the plumage, particularly the light-marked line on the outer webs of the outside feathers of the tail of the Rock Pigeon, and which we certainly trace on all the blue specimens of our varieties. This we need tell no Pigeon fancier does exist in our blue-coloured fancy Pigeons of whatever variety. This is the first, last, and only reason which naturalists give for the theory they have adopted and promulgated. I could forward several species of birds in which certain markings run through the whole, but will only trouble you with one. The Doves and the nearest allied to Pigeons have, as a rule, one common mark; the Cushat or Ring Dove has a line of white-coloured feathers running on each side of the neck; the Collared Turtle Dove the same, but of a black colour. The true Turtle of the Holy Land has also this mark on the neck, as well as a number of the smaller foreign Doves, still they are not connected with one common parent. Our theorists give no examples, no dates; their reasoning is ingenious, but more cannot be said for it. After all the writings and readings of scientific works on this subject, we are no wiser to-day than our great-grandfathers were, who had not the opportunities possessed by us.

Time prevents me going further at present, and I must have regard for space, but in an early issue I hope to forward my ideas of the origin of fancy Pigeons under the title of "Selection No. 8."—J. HURD.

#### BELGIAN CANARIES.—No. 8.

BELGIAN Canaries when sent for exhibition should be placed in wire cages, wooden or box-cages being ill-adapted to show-off their points to advantage. They being of a somewhat retiring or steady nature, compared to most other breeds of the Canary, will, when exhibited in cages having wooden sides and backs, seek the ends of the perches nearest the back of the cages, and it is with some difficulty that the person appointed to judge the birds can succeed in getting them into proper form so as to



fully convince him as to the merits or demerits they may possess. Not so, however, when they are shown in wire cages, for then when properly handled they are under certain command, and true Belgian position may be the more fully developed.

I have said "when properly handled." Some may imagine I intend this remark to apply to the birds. Not so, it is the cages I refer to. The mere fact of looking at Belgian birds upon the stage amounts to very little. They require an attentive scrutiny, and each cage should be lifted off one by one steadily and with the greatest care. If upon the first approach to any particular bird you find it exhibit a temporary nervousness, or inclined to become fidgety or flighty, leave it alone and pass on to another. The bird will gain a little confidence by the time you next approach it, with your hat off as a matter of course.

There is a vast difference in the appearance of Belgian birds. Some when at ease and undisturbed will possess good general position; others require getting into position, and it is sometimes necessary to "fiddle" them up somewhat ere you can bring them to your liking. The birds not only require to be looked at in your hands level with your face, but held up somewhat higher than your face to see that they are neatly formed from chest to vent, being well braced-up, or as a Nottingham fancier once remarked to me whilst examining a clipping specimen, "He's a one rap'n, George." I replied, "Yes, he is," for I always allowed Mr. William C— of Nottingham to be a judge of Belgian birds. I formed this opinion from the time he showed me some of the best Belgian birds I ever witnessed, at a place known as Robber's Mill, in the suburbs of Nottingham. It was there I saw the very best Buff Belgian hen I ever have examined, and I believe that the aforesaid William C— had something to do with the famous Buff cock (the Crystal Palace champion of years past), I referred to in a previous chapter.

But I am diverging somewhat. In picking-out the points of a Belgian you must not only look at the bird straight and up at it, but lower it to your waist, holding the cage in both hands and taking a glance over the bird. By this means you will the better mould the bird's points and positions in your eye, and be enabled to arrive at the conclusion as to which are entitled to your choice. To some this may appear tedious, but such is the nature of Belgian birds that it is necessary to exercise patience and time. But some birds are quickly decided upon.

If a Belgian bird becomes suddenly frightened, and during a temporary paroxysm should dash about the cage, that bird requires steady to its perch and work before its merits can be decided upon. One matter in particular, often thoughtlessly committed by visitors to bird shows, is that of suddenly pointing the finger close to a cage containing some bird of special merit. I have known serious results and even deaths to ensue thereby.

It is better when Belgian birds in particular can be conveyed to an exhibition under the immediate care of the owner or some person deputed to see them safely delivered in the show-room. They would thus escape the ruthless tumbling about they sometimes have to encounter whilst being conveyed by rail. I have been concerned frequently by witnessing at railway stations hamper of cages containing birds turned and tumbled about upside down, and any other way, regardless of the frail occupants, whilst being transferred from the parcels' van to the platform.—GEO. J. BARNESBY.

### THE BEE SEASON.

THE unprecedented wet weather is likely to create a famine among the bees. The accounts that reach me from various parts are deplorable—plenty of bees but no honey. One man from Buckinghamshire, an extensive bee-keeper, although a cottager, tells me he and his neighbours do not know what to do with the bees, and would sell a quantity at 6s. per hive, for there is no other fate in store for them but starvation or brimstone. My hopes of supers are almost gone. Three weeks ago I had several looking promising, but instead of growing heavier I have had the mortification of daily finding the honey vanishing. How our honey fair and show will come off in September I do not know, although I have heard of some very fine supers filled from the fruit blossoms long ago. Let every bee-keeper look to his swarms and stocks, and feed them where light. Few are conscious of the enormous loss of bee life when weather is bad even for a few days. Although there may be honey in the hive the bees will not let their young mature if no food comes in—that is to say, not to the full extent of natural increase, and this is more especially the case with weak stocks which want population most. As an instance I will mention that in a unicombed hive in which I was carrying out some experiments on the 14th, 15th, and 16th of July, I noted twenty cells in which I saw the queen lay eggs, and on the 25th of all these cells but one or two (I was doubtful of the identity of one) contained a tenant. All the others, some of which I had previously seen with larvae

were empty, and inspection of the comb convinces me that destruction more or less had taken place all over the hive, and which I have no doubt will be confirmed a short time hence by the diminished population.

By means of this same hive I have been curiously noting the transformation of a stock of black bees into Ligurians. On Whit-Tuesday evening I released into the black stock a Ligurian queen, whose first young bees emerged on the morning of the following Sunday fortnight, eighteen days and a half only having elapsed since the first egg could have been deposited. The following day many Ligurians appeared, which they daily continued to do, and the blacks to diminish, until on the 20th ult. I could not find a black bee in the hive, as some of the black queen's eggs had only been hatched six weeks. This time may be taken as the limit of the worker's life in summer. It was also interesting to see how the old bees were pushed out in the cold by the more youthful. For several days before the last disappeared the poor blacks were always to be found at the bottom of the comb, being, I imagine, jostled out of place by their stronger sisters. Helping the distressed is evidently not a bee's virtue, unless, indeed, a sister bee is clothed with honey, when self-interest induces them to lick her clean to mutual advantage.—JOHN HUNTER, *Eaton Rise, Ealing.*

### DRONE MURDER.

ONE would fancy that the year 1875 has been one of great disappointment and suffering to drone bees. They seldom leave their hives but in fine warm weather, when they take long excursions into the country. Drones travel one or two miles at least farther from home than working bees. The inclement weather has kept them much at home this season. Their lot and history at best are not enviable; their sufferings and doom, when seen and understood, excite feelings of commiseration. Many times this year have we felt touches of sorrow for poor drones famishing together in huddled masses on the boards of their hives from sheer hunger and want. Driven and kept from the honeycombs in their hives by the bees they have been hungered to death. Why they are not killed outright, or more mercifully dealt with, no one is able to say. Some theorist may ask, "Is not murder by starvation resorted to, to save the stings and lives of workers?" It may be so, but so far as we know it has not been proven that bees lose their stings when killing one another. One thing we are sure of is that the bees of one hive have killed an equal number of strangers clumsily cast amongst them without apparent injury to or the death of one of themselves. If bees kill bees without apparent injury to themselves, and queens kill queens without suffering, why not drones be destroyed by stinging? We are not given to theorising and offering explanations of things unknown, and there are many secrets in bee history yet unfathomed, and many that never can be fathomed; and this slow process of drone-destruction methinks is one of them.

Even the massacre of drone life before birth though explainable is a wonderful thing. When bees are short of provisions, when in times of scarcity the bees find that their stores are nearly exhausted, they almost invariably tear the unhatched drone brood out of the cells and cast it overboard. In times of threatened starvation the bees do what they can to stay the evil day by destroying the most worthless members of their community. The loss of unhatched drones in itself may be considered an advantage, but it should be remembered that when bees approach or come to the verge of starvation they wisely refuse to set worker eggs. When bees ready to swarm, so far as numbers go, find their stores nearly all done, and weather unfavourable for gathering more, they generally cast out their white drones and set no eggs of any kind. They are thus cast back about three weeks, and they let weaker hives run ahead and swarm before them. The appearance of white drones outside of hives in the months of May, June, and July is a most striking indication that their inmates are on the borderland of starvation.

Many people are now wondering why their first and early swarms are casting out white drones by the handful. If they would but lift or weigh their hives, or otherwise examine them, they would find that they are on the confines of death. Much as one feels for poor drones on seeing them hungered to death, more is felt for the industrious working bees when they are neglected and starving. When weather is favourable for honey-gathering, or when they receive kindly and considerate treatment in the day of adversity from their masters, bees do not cast out white drones.

The first day of this month found hives in this neighbourhood in a much more unpromising state than they were on the first days of June and July. We repeat with emphasis the watchword given two weeks ago—viz., "Attention to feeding." Last year we resolved to reduce the number of our stocks to six or eight, which should be kept always at home for experiment, for what was once a pleasure to us is now a toil, such as taking three scores of hives to the Derbyshire hills. My resolution to lessen the number of our stocks was partially carried into execution.



## WEEKLY CALENDAR.

Day of Month	Day of Week	AUGUST 12—18, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.		Clock before Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.		
12	Tu	Canterbury Show.	75.1	55.5	65.3	42	44	27	47	27	5	49	11	11	4	45	224
13	W	Manchester National Carnation and Picotee Society's	74.5	50.0	62.8	44	4	27	7	17	6	51	0	12	4	88	225
14	Th	Burnpfield Show.	72.9	50.8	61.8	45	4	26	7	53	6	51	0	18	4	27	226
15	F	12 SUNDAY AFTER TRINITY.	78.1	50.0	61.6	47	4	23	7	19	7	4	2	14	4	16	227
16	Su		78.0	51.5	62.2	49	4	21	7	39	7	23	3	15	4	4	228
17	M	Coventry (at Coombe Abbey) Show.	72.7	50.1	61.4	50	4	19	7	54	7	46	4	17	5	58	229
18	Tu	Royal Horticultural Society—Fruit and Floral Com- mittees at 11 A.M.	73.3	50.7	62.0	52	4	17	7	6	8	8	6	17	5	59	230

From observations taken near London during forty-three years, the average day temperature of the week is 73.5°; and its night temperature 50.5°.

## VARIETIES OF PERFUME IN THE ROSE.



AMONGST the whole world of floral productions surely there is no one flower so acceptable to mankind as the Rose; and this not so much for beauty of form, colour, and the exquisite infolding grace of its petals as for its proverbial sweetness. For bringing the subject of fragrance prominently before your readers we are indebted to our friend Mr. Camm, and doubtless we shall be no less so to our valuable Rose friend Mr. Hinton when he has gathered up and classified all the Rose hints and sweet varieties in the proposed election of sweet Roses. My object now in troubling your readers with my contribution is that the proposed election may have some kind of scientific classification that may be useful to us in a future consideration of the subject. A sweet Rose conveys to my mind an agreeable fact, but were that sweetness to be described it would lend much more interest and intelligence to the fact. Descriptive Rose catalogues could then be made much more intelligently descriptive on the one important subject of fragrance. Our French neighbours are very lively and imaginative in their varieties and descriptions of colouring. When our olfactory senses are in good training we may discover nearly as many shades of scents as there are shades of colour in the Rose; at any rate, a most interesting field of study would be opened up by first classifying the types of scent and then tracing out their hybrid subdivisions. In sweet-scented Roses we must all take an interest, and I am sure none more so than our lady gardeners, whose delicacy of discrimination in all matters of perfume will be of the greatest assistance.

The well-known perfumes of flowers, such as Mignonne, Musk, Heliotrope, Verbena, Violet, Orange blossom, and the like, all elaborated from the same elements, are, to my mind, very wonderful; they, however, keep their own peculiar scents all the world over; but the Rose, queen of all, is unsurpassed in the variety of its perfume.

Having during many years given much attention to this subject, I would endeavour to make a classification of distinct types of Rose scents, asking your readers to bear with me in this first attempt at classification, yet feeling sure to a highly-cultivated olfactory taste it is not overdone, that the families of Tea and Hybrid Perpetual might still further be subdivided in an interesting manner.

I would here enumerate some seventeen varieties, beginning with the well-known Sweet Briar:—

1. *Sweet Briar*—The garden variety.
2. *Moss Rosebud*—Common Moss and family.
3. *Austrian Briar*—Copper Austrian and family.
4. *Musk Rose*—Narcissus, Old Musk, and family.
5. *Myrrh*—Ayrshire Splendens.
6. *China Rose*—An astringent refreshing scent, old Monthly China, and many others.
7. *Damask Perpetual*—Rose du Roi, &c.
8. *Scotch Rose*—The early Double Scotch.
9. *Violet*—White Banksia.

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10. *Old Cabbage*—The well-known Double Provence.
11. *Otto Perpetual*—Charles Lefebvre, Mme. Knorr, &c.
12. *True Perpetual*—Cécile de Chabillant, Pierre Notting, &c.

13. *Old Tea*—The old yellow Tea or Magnolia Rose, and others almost unpleasantly strong for some tastes.

14. *Sweet Tea*—Goubault, Maréchal Niel, &c.

15. *Hybrid Tea*—La France; Bessie Johnson is closely allied to this.

16. *Nectarine or Fruit-scented*—Socrates, Jaune Desprez, Aline Sisley, &c.

17. *The Verdier*—Represented more or less by all the Victor Verdier hybrids, such as Eugénie Verdier, Marquise de Castellane, Comtesse d'Oxford, Mdle. Marie Finger, and very many others of recent introduction. Some compare this slight but peculiar perfume to that of Apples. I think it might be described as a delicate Rose scent with a suspicion of turpentine about it not unpleasantly blended.

The petals of the highly-scented varieties have on their inner surface minute perfume-glands or vesicles containing the highly volatile essence under the microscope distinctly visible; those on the foliage of the Sweet Briar almost to the naked eye; so that with the aid of the microscope and good olfactory practice the interesting question, Which are the sweetest Roses? may be readily settled. To my taste, and by the same rule, the following are the most deliciously and powerfully scented:—La France, Goubault, Devoniensis, Maréchal Niel, Bessie Johnson, Madame Knorr, Pierre Notting, and Charles Lefebvre. As a rule, nearly all the dark Roses are sweet-scented. To unstop Nature's finest bottle of Rose, remove the cap in hot weather from a "pasted" full-blown bud of La France, or even of the old Cabbage Rose, the flower will instantly expand, throwing out a surprising volume of fragrance. Roses after they have been gathered a short time appear to give off more perfume. Again, Roses blooming under glass usually give off more scent than those of the same kind blooming in the open air.—

HENRY CURTIS, *Torquay Rosery.*

## NOTES ON A FEW PEARS.

I THINK I know the gentleman alluded to by Mr. Taylor as a grower of Pears in Yorkshire. If I am right in my conjecture his name begins with M, and that of his village with G. Assuming this to be the fact, I venture to assert that that gentleman's garden is worth going fifty miles to see as a pattern at once of neatness, fruitfulness, and good management. There is not a foot of wall wasted, and his trees bear to the very ground. Before I went to see his garden I was conceited enough to suppose that I knew something about the growth and management of Pear trees, but a walk through his garden in his company most effectually dissipated that notion, and I came home with much humbler ideas of my own management.

But to return to Pears. First, of the Beurré de Capiaumont. It is given as a baking or stewing Pear in Rivers's catalogue, and is sold in the Manchester market for a

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Pear of second or third-rate quality; but with me it is not only an extraordinary bearer, but of first-rate quality, although when in perfection it keeps but a very short time. When I first fruited it I stored it in a cool fruit room, and it always remained turnipy and tasteless. Now, as soon as gathered, it is hanged up in a warm room where the temperature is never below 60° Fahr. and frequently 70°, and in about ten days or a fortnight it is perfectly melting and high-flavoured, but very soon decays. The same treatment applies to *Beurré Clairgeau*, which with me is very good so treated, whilst its fertility is as remarkable as is that of *Beurré de Capiaumont*. I learn also (although I have not proved it) that *Beurré d'Amanlis* is much improved by the same treatment.

*Beurré de Rance*. This Pear requires peculiar treatment here. My first attempts to mature it were failures. As I had found that warmth was essential to the maturation of the *Beurré de Capiaumont*, I tried it with the *Beurré de Rance*, and found that it dried up without melting. The next season, I put the crop in a large earthenware jar and put on a cover, and set it in a warm room. At Christmas, thinking my Pears ought to be ripe I opened the jar, and then discovered that the moisture which evaporated from the Pears had condensed on the cover and falling back on the Pears had rotted them all. I now adopt a modification of this plan. I put the Pears in the jar, but only allow them to remain there a month, and the maturation having then fairly begun it goes on, and they are very good about Christmas; but my neighbour (the vicar of Whalley) by keeping his in a cool fruit room has them in perfection in March. Whether the soil has anything to do with this I do not know, but my trees grow in something like a clay puddle.

*Beurré Bosc*, *Beurré Superfin*, and *Marie Louise* are always good, and so is *Thompson's*, but this last is a shy bearer with me out of doors; in the orchard house it bears profusely. All my previous remarks refer to trees against east and south-east walls. As standards they would be worthless, even the *Seckle* and the *Beurré de Capiaumont* as standards are mere Orbs. As wall trees, and adapting the treatment of the fruits after being gathered to the varieties, I manage to have some good fruit every year, but shall be glad of a few more wrinkles.—T. G., *Clitheroe*.

### A VISIT TO PILTDOWN.

HAVING often desired to visit the Messrs. Mitchell's well-known nurseries I have at length accomplished this during a visit to Eastbourne. Uckfield is their railway station, from which Piltown is a pleasant drive or walk of two miles and a half. I was surprised to see so many fields of Hops on the roadside.

"Until St. James is past and gone  
There may be Hops and there may be none."

St. James is now most unquestionably past, and it is happily also certain that there will be Hops.

The first object that catches the eye on approaching the nurseries is that magnificent *Araucaria*, one of the finest in England (two stand together by the roadside), thirty-two years old; of which the finest, with the figure of its late owner standing beside it, was at one time very familiar on the cover of the Mitchell catalogue. It was a melancholy feeling, having to pay a first visit and to find him gone who had so often invited it.

"Redit on placidum moroseque benigni."  
(Remembered is the calm face and manners kind.)

The portly form and pleasing manners seemed brought irresistibly back to me.

After a most hospitable reception and excellent luncheon, to which I was welcomed by the widow of my old friend, I sallied forth with the two young proprietors on our tour of inspection. The Rose Farm, as Cheshunt was happily entitled by a relative of my own on a late visit there—the Rose-growing space here is about forty acres—not, of course, that the whole is under Rose culture at one time. The soil is sandy, with clay underneath, I apprehend an unusual but very convenient combination; while on one side three acres bordering on a large adjacent Rhododendrons are chiefly peat, and appear to grow very excellent Rhododendrons.

At first, as in duty bound, I went to inspect the Pinasters, of which I know so little that mentioning them at all is a perilous undertaking. The *Araucaria* avenue is a marvel, and in memory a joy for ever. The trees of this class are wonderful, and such a long double row of them, and of such size, is,

I understand, nowhere else to be met with. They seed freely at Piltown, and a considerable number of fine young seedlings are in process of raising. Fine specimens of the *Retinospora pisifera aurea*, *Thuja dolabrata*, and a variegated *Weldingtonia*, a sport raised at Cork, are to be seen among many others.

Having thus, like the school children, disposed with all haste of the bread and butter first, I come now to the cake—i.e., the Rose department. I had been apprehensive that Dame Flora, like most other ladies, would be taking an outing in August, and that there would be comparatively little to see, but my first glance over the hedge when approaching quite put an end to that fancy. Nowhere and at no time have I seen a more beautiful collection of Teas; budded on the low Brier they are grown to very great perfection, and were at this time full of bloom as well as shooting very strongly. Among old friends *Madame Blacket*, *Moiret*, *Niphotos*, &c., were in great beauty. *Belle Lyonnaise* and *Madame Berard* I found were held in great favour; they are certainly much the best seedlings we have yet had from dear old "Glory" as it is sometimes called. *Jean Pernet*, good. *Duc de Magenta*, an improved *Robson*. *Le Nankin*, a delightful new yellow, which everyone should have. And, to mention but one more, *Souvenir de Paul Néron* received, and certainly merited, very high commendation. It appeared something like a much stronger and more free-growing *Madame Bravy*.

Among the H.P.'s *Capitaine Christy* was very good, *Mdlle. Bonnaire* quite strong and free-growing as a standard. What white Rose can come near her when really well grown? The Shah was well spoken of. *Mdlle. Marie Finger*, fine. The Duchess of Edinburgh (H.P.) we agreed was disappointing, but to mention all the beauties would be to transcribe half the catalogue.

English seedlings are now coming so fast to the front (at Cheshunt they appear to have almost a glut of these), that I made especial request to be conducted to that department. The Messrs. Mitchell have several which they have worked on Briers, and which will no doubt apply for certificates in due course. Before long they will, I incline to think, be very likely to introduce us to good English Tea Rose seedlings. In Tea Roses their special strength lies, and of these we have at present a very limited number. They intend this year, if the sun allows, to have a considerable sowing.

After fresh hospitality I concluded a most pleasant day by returning to Eastbourne with a box of irresistible Roses, and strongly recommend, to all who can manage it, a similar excursion.—A. C.

### THE MORELLO CHERRY SHORT-PRUNED.

I ADMIRE Mr. Taylor's trenchant Saxon—it is straight, plain, and practical. I have profited by the instructions he has given, and have been able to confirm much that he has advanced; but I cannot endorse his simile at Mr. Abbey's expense, that it is as reasonable to train an Oak tree on a balloon trellis as to cultivate the Morello Cherry on the spur system of pruning. I grant that the laying-in of young wood is the mode suggested by the tree itself, and by that plan immense crops of fruit are produced; but I also know that immense crops are producible when the tree is managed on the spur system of pruning.

The finest trees I have ever seen are trained on the fan-shape, and the branches are regularly and closely studded with spurs formed by systematic summer-pinching. The fruit from these trees is also the finest I have ever seen, and is produced in great abundance, and, further, if I am not mistaken, a greater amount of fruit is provided at a lesser outlay of labour than by the orthodox system of laying-in the young wood. The tasking-in of young wood and the cutting-out of old wood is a tedious process, and, as a consequence, we find in gardens where work presses that the Morello Cherry trees are worse tended than any other trees. Trained on the spur system the summer dressing and winter pruning is quickly done, and it is certain that by this plan a satisfactory and abundant supply of superior fruit may be produced.

The trees managed on this system which I am acquainted with are, in my opinion, models of good culture. The branches are just so far distant from each other that the foliage of one branch does not overlap that of the next (a golden rule in "judging distance" in tree-training), and the branches 20 to 30 feet in length are wreathed with fruit from base to extremity. Not a fault is to be seen in these trees, neither by

excessive crowding nor bare patches, and they afford proof absolute and incontrovertible that the spur mode of treating the Morello Cherry is not only practical but profitable.

I think the system is worthy of extended adoption, as leading to trees not only more handsome in appearance than are those generally met with, but as requiring less time in routine management, and in producing fruit both abundant and fine.

I know nothing of the Black Currant on the spur system, never having proved it, but I do know trees of Morello Cherries which have been closely pinched for over twenty years, and judging them by their fruit I have never seen trees to equal them in value; and I think that if other cultivators will test the practice they will agree with me that the plan is recommendable.—A NORTHERN GARDENER.

### A CORNISH ROSARIAN'S NOTES.

THE taste for "whoppers" in Roses is, Mr. Badolphe tells us, "a coarse taste," but in his list of select ones for button-hole purposes he names amongst others "fully expanded" Charles Lefebvre, Duke of Edinburgh, and Marguerite St. Amand. This looks uncommonly like "whopper" worship. He must surely have had in view the decoration of some gorgeous "Jeannes," such as Leech's pencil has immortalized, or the tribe of portly coxcombs whose floral adornment sometimes takes the form of Hollyhocks and Sunflowers. Ordinary mortals, however, may well be content with Homère, Camary, Devonianensis, Safrano, Jules Margottin, Louise Wood, and the Moones in bud, and with Céline Forestier, Boule de Neige, and one or two others partly expanded.

Fragrance in a Rose is undeniably a very valuable quality, but it seems to me Mr. Pesch puts it fairly when he says, "We think far more of beauty of colour, form, and freshness, to say nothing of size, so long as it does not lead to coarseness, than we do of mere scent;" and in the Journal I see he has since laid down the distinction between size and coarseness clearly and soundly. The odour of the Teas as a class, delicate as it is, strikes me as being inferior to that of the Perpetuals of the Marie Reily, Senateur Vaisee, and La France class with their rich fruit-like perfume, and to the honest scent of the old Cabbage; but *chacun à son goût* here too.

Mr. Camm in his article on "cut-backs" plainly states what I think will be found to be the experience of most growers. I have never yet seen a batch of maiden plants, as a whole, carry blooms comparable to those from the same number of cut-backs. Mr. Baker's plan I have pursued, and can recommend where it is practicable—viz., three quarters: one for stocks, one for maidens, one for cut-backs; and then, whether you have exhibition stands or simply garden decoration in view, the continuous supply this plan affords meets both. Mr. Baker's victories show what an amateur may do, and if he would let us know how many plants he has under cultivation we should be the better able to estimate his success.

Mr. Pesch says, "Under proper cultivation Roses on their own roots will also give quite as fine blooms as on the Dog Rose." Is this so? We see little or nothing written about Roses on their own roots. I rear some annually, but cannot say much in their favour for high-class flowers. I shall be glad to read the experience of others.

Mr. Lachhurst, in some notes on Tea Roses, says of Triomphe de Rennes, "Pretty little flower of a delicate yellow shade, but is unworthy of a prominent position." Just the opposite of this would be my comment on this Rose; its blooms with me are frequently 4 inches across, and on the Briar especially it is vigorous, free-flowering, and well worthy of a "prominent position" in any collection.

As to Madame Lacharme, whatever doubts may hang about her reputation one thing is certain—she continues to make a number of people agree to differ. Hitherto wherever I have seen this Rose in this moist part of England it has shown itself unfit for outdoors, but I can understand that under glass it may be valuable. I have tried it on the Manetti and on the Briar, and on neither has it behaved as a Rose ought. The flowers, which have persisted in not passing the half-open state, showed tokens of a modest discernment which were creditable to them as compared with the conduct of the soiled shabby-looking flowers that did open.

Mr. Mayo, in No. 735, says that he included Felix Genaro in his list of last year's election of best fifty, but the published list does not bear him out.

Mr. Beasbey, in one of those pleasant contributions of his in No. 729, speaks of "cutting Roses if you are so minded

every day of the year." Will he and others who have paid attention to the best form of house culture give us a few notes under this head?

I had written a few notes about the Devon Rosery, where I recently spent a few pleasant hours with Mr. Sandford, the energetic and intelligent partner of Mr. Curtis, but they have been mostly anticipated by "D., Deal's," narrative. I think the nursery will be better worth seeing next year, for a finer lot of stocks than the budders were upon I never saw, and the season has so far been favourable; whilst in last year's work there were many failures. A fortnight back no Rose in the establishment would compare with Capt. Christy; the plants were superb. If the bloom of this Rose were inferior instead of being superior to most, it would be then worth growing for its ample, deep-coloured, finely-shaped foliage. François Michelon, Etienne Levet, and Capt. Christy were, I found, being propagated to the utmost; of the latter I noticed six hundred stocks in one plot. Marquise de Mortemart I never saw before as I saw it there. Its blooms, in spite of the delicacy of the plant, were sufficient to induce anyone to try it. It was grown next to Madame Lacharme, and the Madame was nowhere. Cheesnut Hybrid much struck me. If this be a true Tea its colour, substance, and vigour ought to be turned to good account. I fancy it has a tendency to coarseness; some of the flowers reminded me somewhat of Anna Alexieff.

"D., Deal," speaks of the demand for cut blooms, and I found that for about a third of the year they usually sell sufficient to pay their weekly charge for wages of about £15. Mr. Sandford also told me their trade had so increased that they were in treaty for an additional three acres of ground adjoining the present seven.

"D., Deal," praises the scenery of Torquay and its neighbourhood, and beautiful it is. After I left the rosery I strolled down the Torre Avenue with its grand Limes in full bloom; and as the soft air swept up from Torbay, bringing with it their sweet fragrance, and the soft murmur of the bees in their delicate tassels, it recalled snatches from the choric song of the "Lotos Eaters" and its associations of beauty and repose. But although you may "hear the cuckoo and the blackbird close to the very shore," and the coast be "clothed to the water's edge with luxuriant foliage" here, yet to one on a summer's holiday I would recommend by way of contrast the experiment of going, as I did, by the nearest route from Torbay and its semitropical pictures to "Intagel by the Cornish sea" and to quaint Boycastle, the Eglogian of "The Three Feathers," and its wild coasts. It may be the partial judgment of one who believes strongly in the beauties of his county, but I will venture to predict that the scenery of the latter will give the truest enjoyment. The bluff headland and the towering cliffs, the calm inlets, the cry of the sea bird, the breezy downs with their Heather, Gorse, and wild Thyme; and above all, before you always the sea in its full sublimity, recalling not the Sybaritic ease of "Lotos Eaters" but the prowess of a race of sea kings. These I regard as far away beyond anything Torquay and its neighbourhood, lovely as it is, have to offer.—*CONNUZZI.*

### SHIFTING GREENHOUSE PLANTS WITHOUT INCREASING THE SIZE OF THE POTS.

SHAVING an inch off the root-bound ball of earth, moulded by the pot in which the plant has been grown, is recommended by Mr. Douglas on page 99, and by "S. W." on page 118. No further testimony is needed as to the practicability of the plan. I have adopted another mode principally with Azaleas, and nothing could have answered the purpose better.

The plants for want of support were in anything but robust health; they plainly required larger pots; but these, for special reasons, could not be given them. Not having them head of the slaving process, I adopted the following plan of giving fresh soil.

Instead of slicing the earth all round, I with a sharp knife cut out three equidistant wedges, commencing at the top of the balls and cutting down to the bottom, after the manner of carving a piece out of a cheese. The balls were returned to the pots, and fresh soil was rammed firmly into the spaces from which the wedges had been taken. The plants improved considerably, and the following year wedges were cut from other portions of the balls and their places occupied with fresh soil, and the plants were brought into perfect health without any increase in the size of the pots. The plants were not in the least injured by the operation of cutting. By continuing the

practice year by year plants may be kept healthy for an indefinite period without changing the pots in which they are growing. This in the case of plants which have to be fitted into ornamental receptacles is a matter of great importance, and the modes mentioned can hardly fail to be useful to a large number of cultivators.

Whichever plan is adopted it is important that the ball of earth is not dry at the time, or the water will not afterwards penetrate it, but will run in channels through the fresh soil. For the same reason, also, it is important that the new soil be made firm—as firm, if possible, as that of the old ball. A complete renovation of the plant will then follow without materially increasing its size.

By the plan stated I had Azaleas in 7 and 8-inch pots for ten years in a satisfactory state of health, and I have not the slightest doubt that the same plants can be kept healthy for another ten years without increasing the size of the pots in which they are growing.—EX-EXHIBITOR.

### HYDE PARK.

ALTHOUGH the continuous showers which fell in July have left their marks on many plants—fostering a coarse growth in most of the Pelargoniums, and imparting a gross habit to Lobelias—still, despite these drawbacks, Hyde Park has probably never been more effective than it is at the present time. It is worthy a visit by all who are interested in garden decoration, and will afford both pleasure and instruction to most examiners, and an acknowledgment from all of the general high-keeping which pervades the ornamental department.

Entering by the Marble Arch to glance at the series of beds parallel with Park Lane we find that, in addition to the rain, the shade of the trees has checked the growth of the edgings of *Alternantheras* on the one hand, and has induced a preponderance of foliage on the Pelargoniums on the other. Under these conditions the old variety *Venus* shows to advantage, but the yellow foliage of *R. Fish* and *Creed's Seedling* is of a dingy greenish hue. *Murillo*, a glowing crimson Nosegay, is clearly an effective bedder, being rich and free; and *Vulcan*, an orange-scarlet Nosegay, is very bright but irregular in growth. *Chilwell Beauty*, rosy crimson, is distinct and fine; *Mrs. Mernier*, of the type of *Rose Rendatler*, as here seen is no improvement on the old variety; but *Master Christine* is fine both in truss and colour. *Shakespeare* is a very effective orange scarlet, free, and with bold trusses; and *Mr. L. George*, glowing crimson scarlet, is very rich. *Mrs. Stubbs* is also a good crimson Nosegay. *Mrs. Turner* has immense trusses of rich deep pink, and although the growth is irregular its effect is very striking. Of the Gold Bicolors the best beds are *Black Douglas* and *Golden Harry Hieover*; *Beauty of Calderdale* and *Perilla* being coarse and overgrown. Many of these beds are edged with *Verbenas*, but the season has not been propitious for their growth.

Commencing at Grosvenor Gate we find some very fine beds. Great improvements have been effected here. The turf on which the beds are formed is made to slope towards the centre, along which are plunged a row of specimen Bays and stately Palms. These are in admirable health, and the beds, which are arranged in pairs along both sides, are well filled. It is futile to attempt a description of the tapestry beds, which are elaborate and well finished, and which require more than a passing glance. Of the Pelargoniums, *Lady Emily*, which is so fine as a pot plant, is not good here as a bedder; but *Amaranth* is remarkably fine. *Mr. Gibbons*, a rich pink having a fine truss, is also very good; and there are fine beds also of *Cleopatra*. *Sibylla* is another good pink variety, and *Culford Pink* is distinct in this section. Amongst the high-coloured sorts *Fire King* forms a splendid bed, and *Briton* is intensely scarlet and very tall. General *Outram*, *Wellington*, and *Bonfire* are all valuable bedding varieties, being good in habit, floriferous, and rich. One series of these beds is edged with *Albion's Oliffs* silver variegated Pelargonium, *Iresine Lindenii*, *Lobelia*, and *Echeveria*, and the other with *Lobelia White Perfection*, *Alternanthera*, and *Golden Feather*, and these edgings by their extreme length are very beautiful. In some instances the old *P. Manginii* is employed as an edging, and is very satisfactory; but *P. L'Elegante* is a complete failure. There are also some mixed beds, which afford agreeable relief to the formal masses and rigid lines of colour. Palms brightened with *Calceolarias*, *Perilla* and *Golden Abutilon*, *Gesania splendens* and *Iresine Lindenii*, *Golden Pelargonium R. Fish*, and *Purple Verbena* are the best examples of these combina-

tions. Beds of *Coleus* are, fortunately, not numerous, and the plants have scarcely moved since they were put out. Taken altogether there are fewer blanks than could reasonably be expected, and the general neatness of this part is creditable to those who have the charge of it.

In what is known as the subtropical department are some fine beds of flowers. A large bed of *Erythrina* in variety is just putting on its coral dress, and in pleasing contrast is a group of light *Fuchsias* edged with *Salvia argentea*. Beds of *Liliums* are just unfolding their thousands of flowers and filling the air with fragrance, and some *Pelargonium* beds are very fine. *Mrs. Turner* edged with *Purple Queen Verbena*, *Mrs. Kent*, *Colonel Wright*, *Mrs. Gibbons*, and especially *Oxton*, are varieties of *Mr. Pearson's* fine strain of the highest rank for bedding purposes. Associated with these are subtropical plants in profusion, *Rhododendron* beds in which are dotted *Lilium auratum* and banded with bright *Geraniums*, and standard *Acacias* based with succulents and *Alternantheras*, forming a varied feast of beauty, which on the undulated ground and beneath the shade of the trees is cool yet cheering, and particularly attractive.

On the broad expanse of turf beyond the drive are also some striking beds of a subtropical nature. These are large and isolated, and are very ornamental. We note, as composing one of these beds, large plants of *Seaforthia elegans*, *Dracenas*, and *Ficuses*, with an undergrowth of *Variegated Maize*, *Abutilons*, *Coleus*, and dwarf Palms; the whole bounded with *Pelargonium Bonfire* and edged with *Tussock variegata*. The bold foliage of this *Coltsfoot* and its clear white marking is exceedingly fine, not only for distant effect, but it will bear close examination. It is a hardy edging plant of the first order for large beds. Other beds are planted with *Ferdinandia eminens*, edged with *Eucalyptus globulus* pegged-down; *Ridinus*, edged with *Melanthus major*, and surrounded by *Pelargoniums*; and a bed of *Cannas*, banded with *Princess of Wales Pelargonium*, very fine cerise trusses; another bed of *Cannas*, surrounded by a zigzag of *Cineraria maritima compacta* and *Iresine Herbertii*, and edged with *Lobelia*, which is remarkably effective; also good beds of *Golden Pelargoniums Harry Hieover*, *R. Fish*, and *Creed's Seedling*.

In contrast to this, where foliage and flowers are combined, is a charming example of subtropical gardening in the dell near the Albert Gate. This is both extensive and excellently done. It is an admirable example of tropical scenery. At the bottom is the stream flanked by Ivy-mantled banks, along which the *Osmunda regalis* grows luxuriantly, and stretching beyond is the rising ground lightly studded with forest trees, up the trunks of which is trained the *Monstera deliciosa*. Between these are grouped tall specimens of *Dracena australis*, *Mosses*, and tree Ferns. *Cyathea*s spread their noble fronds over the smooth turf, which is further studded with Palms and *Cycads*, and lightened by groups of *Arundo donax variegata* and *Phormium tenax variegatum*. From the base of these variegated plants rises a group of *Aralia spinosa*, and at the visitor's feet are bright beds of *Pelargoniums* of *Rose Bradwardine* and *Triomphe de Stella*. The whole arrangement is a triumph of decorative art, and those who have planned and those who have executed it merit the approbation of all lovers of high-class decorative gardening.

If the prevailing showers have dimmed the bloom of the flowering plants, they have more than compensated by decking the park in a spring-like robe of green, and in furnishing a setting to the picture which to be seen is to be enjoyed and appreciated.

### NECESSITY THE MOTHER OF INVENTION.

ACQUAINTED to a good garden, which, thanks to this Journal, every year becomes more productive as well as more attractive, I find myself in a country vicarage where "the Leeks, the Garlic, and Onions of Egypt" are supposed to abound, but unhappily do not. Surveying my resources for a month's sojourn the day after my arrival, I observe a few rows of Peas which seem to have almost done their work, and certainly are past their prime; there are in addition some Kidney Beans which evidently intend to bear as soon as I leave. I wonder whatever is to become of me and mine unless we can contrive to exist either on Carrots, of which the supply seems scanty, or on "Taters," as certain rustics call them. A few days have passed, and already I learn that I am better off than I supposed. A dish has been brought to table which looked rather like a kind of Cabbage, but was not. Challenged to try it,



mixed with melted butter and seasoned with salt and pepper, I was compelled to call it excellent, and yet could not guess what it was. "Boiled Lettuce," was the triumphant reply; and I strongly advise those who have nothing left of the Cabbage kind in their garden to try boiled Lettuce! The fox in the fable advised the other foxes to make themselves like him and to cur-tail their dimensions; I advise your readers to add boiled Lettuce to their list, and so increase their resources.

The dish, I am informed, is by no means an uncommon one in France, and syrup of Lettuce is accounted among our neighbours there to be a good cure for coughs. I cannot but think that our poor people would not waste their Lettuces as they often do if they knew that, even when running to seed, they make an economical and wholesome dish.—E. M. B. A.

#### NOTES BY A ROSARIAN.

I HAVE been too much out of health to run about to Rose shows this year, so I have read greedily the many letters on Roses in the Journal. So much has been written that I felt inclined to say nothing; but your number to hand, with its two letters on our favourite flower, induces me to trouble you with another letter on the old subject. I will try and condense my remarks as much as possible.

First as to cut-back Roses I entirely agree with my friend Mr. Camm. On this soil, and it is a perfect Rose soil, I have all my best blooms from cut-backs; in fact there are many Roses, such as Dupuy Jamain—this year one of the finest Roses in my collection—which I never grew good on a maiden, either Briar or Manetti. They come too single the first year. I grow about 1500 plants, and bud one thousand every year. But the fact of cut-backs being the best will not release the real Rose-grower from the work of budding, as Mr. Duddridge truly says—there are many Roses that will not stand the transplanting, especially when accompanied with packing and a railway journey. I have this year had splendid blooms of Horace Vernet, Xavier Olibo, Marquise de Mortemart, and other tender Roses of the same stamp from plants budded in 1873 by picking off every bud in 1874 and earthing them up in the autumn so as to cover the bud a good 2 inches. I have also found the Briar cutting grow these weak varieties better than the Manetti.

*Tea Roses.*—Out of seventy varieties grown here I can recommend as the twelve best Souvenir d'Elise, Souvenir d'un Ami, Niphotos, Bougère, Rubens, Madame Willermoz, Marie Van Houtte, Comte de Paris, Cheahunt Hybrid, Catherine Mermet (Alba Rosea, Madame Sertot, Madame Bravy, which are identical), Souvenir de Paul Néron. As to Button-holes, I am surprised to see no mention of Madame Charles, a darker shade than Madame Faleot, David Pradel, Souvenir de David, a red Tea, Isabella Sprunt, and Rêve d'Or. These all force well.—EDWARD HANDLEY, *Glastonbury*.

#### BIRDS AND CATERPILLARS.

I HAD within the last few weeks a curious instance under my observation, showing how much gardeners are indebted to birds, especially to sparrows, for the removal of caterpillars. A row of Poplar saplings about 5 or 6 feet high had been visited by one or more females of the Puss Moth (*Dicranura vinula*), whose singular round eggs were freely distributed on the leaves in twos or threes. The caterpillars began to hatch-out early in July, and scattered about, as is their wont; a few dying, as frequently happens, within a few days after they had emerged from the egg. For two or three weeks there was nothing particular to record about them, but as they began to increase in size, becoming more perceptible on the leaves, there soon was perceivable a gradual decrease of numbers. The fields edging the road where these Poplars grow is frequently resorted to by small birds, which naturally suggested the idea that these had not failed to examine the trees. Several plump caterpillars that had just passed the last change of skin, and were to be seen sitting in their dignified attitude of repose, after they had demolished a good number of leaves disappeared suddenly. As it so chanced, I did not visit the spot for some days; when next I did so, at the commencement of August, there was scarcely a puss caterpillar to be found. The numerous bird-droppings on the saplings convinced me that the insects had been assiduously picked off by our feathered friends. Had these caterpillars been killed by ichneumon their skins would have been discoverable, or the cocoons of their parasites. Nor is it probable that they had all been

washed off the leaves by the heavy rains, even if a few had. The caterpillar of the Puss Moth holds on to a leaf or twig with singular tenacity, though lacking the hind pair of claspers found in most caterpillars. Indeed, so tight is the grip taken, that I have seen a hasty attempt to remove one end in the tearing away of the body from the claspers.—C.

#### GARDEN BROOMS.

In my recent peregrinations I have seen two useful garden brooms—one for sweeping the leaves off grass, the other for cleaning gravel. The grass broom (it is useful also for broad drives) I saw in use in the beautiful grounds at Drumlanrig Castle. The gravel broom I noticed at work in the Lower Grounds of Aston Park, Birmingham, which I am glad to see are being noticed in the Journal in a manner in which they are worthy.

As autumn is approaching, and with it the increased work of lawn and walk sweeping, a note of these appliances may be useful to those who know of nothing better than the old garden besom, and wood or iron rake, with which they clean, it may be, their acres of grass or gravel. With either of the brooms I am about to describe more than double the amount of work can be done with less exertion to the worker than can be effected by the implements usually in use. That is not an exaggeration, for, if needed, Mr. Thomson at the one place, and Mr. Quilter at the other can, I doubt not, attest to the correctness of the statement; but as being more convincing than that even, a gardener can make one and obtain the other and so prove their value for himself.

The Drumlanrig Duster—for that is an expressive name—is simplicity itself. It is made by the garden men in inclement weather or when wanted. A stout stick is cut 7 to 8 feet in length, forked at the tapering end. The tines of this fork may be a foot long, and their extremities may be about a foot apart (I speak from a passing glance, not having handled the broom). From point to point of the fork tines a cross-piece is tied, making a triangle. This forms the framework for tying on twigs of birch, which are done much in the form of a fan; indeed, the broom is a birch fan with a long handle. For dusting off leaves which lie lightly on grass or gravel, a more simple yet effectual contrivance than this cannot well be imagined. Of course, it is principally useful where a large expanse of ground has to be swept, and where the men have room for a full swing. Very few twigs of birch are needed for each broom; the number of these and their disposition may be left to the intelligence of an ordinary workman, who will comprehend at a glance now the idea is given him what a useful autumn friend is this Drumlanrig Duster. Make one and try it.

Now to the Birmingham Brush-rake, for that is exactly what it is. Imagine the head of an ordinary whalebone broom elongated to about 36 inches, and instead of being shafted, as is usual for brushing, affix a long handle in the side, and use the long-headed brush as a rake. The very mention of this brush-rake recommends the article, and it was surprising to see what a large expanse of gravel could be effectively cleaned in a little time. The head is, however, made lighter than the whalebone brooms which are in ordinary use. Both these simple garden cleaners are in the fullest sense labour-saving implements, and are worthy of mention and more general adoption.

It would be useful if others who have made an improvement in garden tools of any kind would describe them for the benefit of those who have more work to do than they have time to do it, and who have need of all the aids that can be rendered.—W. J. B.

#### CARNATIONS AND PICOTEEES AT SOUTH KENSINGTON.

READERS of the Journal would think on reading "D., *Deal's*," notes taken at South Kensington on the 21st July, that the flowers exhibited by me were "wonderfully dressed," and that if the cards had been removed the petals would have fallen down. Now, I can say that my flowers, to which four first prizes were awarded, were not dressed in the sense that "D., *Deal*," implies. When I opened the boxes at the Show Mr. Hooper of Bath and Mr. Atkins's gardener were present, and they both exclaimed, "What splendid flowers these would be if they had been dressed!" Mr. John Ball also told me they were very fine, but he also hinted that a little dressing would improve them. I pulled one out from the card to show that

the pod was sound, and the petals stood out as well without the card as with it. Some of the flowers had badly formed petals at the centre; these were removed—perhaps one or two in each flower, and the largest proportion did not require this; but every exhibitor would do the same.

No one would show a Pelargonium with bad trusses or badly formed flowers. Stove and greenhouse plants go under the same manipulation. Small and badly formed Grapes are also removed from the bunches, and even a badly formed petal is pulled out of a Dahlia; and "D., Deal," himself could not show where the defect had been.

But all this is very different from "plucking the centre out of a Dahlia," or "plucking and pulling" a Carnation to the extent of *deceiving* would-be purchasers. I can assure "D., Deal," that anyone with ordinary judgment might grow flowers and have them on their own plants the same as they were shown by me at South Kensington; and I thus publicly wash my hands from trying to deceive the public in the manner stated by your correspondent.—J. DOUGLAS.

### SALINE MANURES TO PREVENT THE POTATO DISEASE.

By a chemical analysis made by M. Sprengel it appears that 100,000 lbs. of Potatoes contain of fixed ingredients in lbs.—viz.,

Potash .....	300
Soda .....	324
Lime .....	88
Magnesia .....	33
Alumina .....	5
Oxide of Iron .....	23
Silica .....	34
Sulphuric acid .....	54
Phosphoric acid .....	40
Chlorine .....	154

Total of fixed ingredients ..... 814½ lbs.

My garden soil consists of a good rich loam well manured; but as I had in previous years found the disease amongst my tubers, it occurred to me, having reference to M. Sprengel's analysis, that both the soil and the manure I had employed might be deficient in potash, soda, lime, and magnesia, chemically prepared, and as I term them, "the astringent properties of manure."

In some measure to counteract the over-feeding effects of the sulphates and phosphates of animal manure which previously stimulated the growth of the Potato to a very considerable size, and produced at the same time a superabundant quantity of haulm and stem, I assumed that the careful supply of these fixed chemical ingredients would in some respect regulate, consolidate, and restrain the plant and the tuber in their growth, and by the formation of a healthy skin rectify the disease.

The favourable result has been that this year I have not found one bad Potato amongst my crop, although the market gardeners in this neighbourhood, without any exception, are suffering heavy losses amongst theirs.

These are the quantities which when well combined together are adapted for an acre of ground.

Potash (salt of tartar), 1 lb. ....	2 4
Carbonate of soda, 2 lbs. ....	2 6
Lime slaked (at 8d. per bushel), 1 peck ....	0 2
Magnesia, 1 lb. ....	2 6
	5 8

These being retail prices, the cost would be much less bought in quantity wholesale.

This compound reduced to powder should be carefully mixed together with the ordinary manure applied to an acre, and spread upon the land in the autumn, or at all events before Christmas time, for next spring sowing.

The amount to be used per acre may seem very small, but then it should be noticed that in this particular instance these ingredients are merely remedial, and are not required as fertilisers to stimulate quantity, but rather as a check to regulate and restrain the prurient growth of the Potato to maturity, and under more salutary influences to eradicate disease.

Such has been the effect upon mine this year—viz., to produce a yield firm, entirely healthy, and clear in the skin, of an average size, and not as previously was the case, some very large and others very small, and to curtail the leaf and stem.—CHARLES F. HAYWARD.

[The foregoing notes, written to the Rev. M. J. Berkeley, are extremely deserving of attention.

"The day has long passed when it was disputed whether saline bodies are promotive of vegetable growth. It is now determined that some plants will not even live without the means of procuring certain salts. Borage, the Nettle, and Parietaria will not exist except where nitrate of potash is in the soil; Turnips, Lucerne, and some other plants, will not succeed where there is no sulphate of lime. These are facts that have silenced disputation. Still there are found persons who maintain that salts are not essential parts of a plant's structure; they assert that such bodies are beneficial to a plant by absorbing moisture to the vicinity of its roots, or by improving the staple of the soil, or by some other secondary mode. This, however, is refuted by the fact that salts enter as intimately into the constitution of plants as do phosphate of lime into that of bones and carbonate of lime into that of egg-shells. They are part of their very fabric, universally present, remaining after the longest washing, and to be found in the ashes of all and any of their parts when subjected to incineration. Thus Saussure observes that the phosphate of lime is universally present in plants.—(*Sur la Végét.*, c. 8., s. 4.) The sap of all trees contains acetate of potash. Beet-root contains malate and oxalate of potash, ammonia, and lime; Rhubarb, oxalate of potash and lime; Horseradish, sulphur; Asparagus, super-malates, chlorides, acetates, and phosphates of potash and lime; Potatoes, magnesia, citrates, and phosphates of potash and lime; Jerusalem Artichoke, citrate, malate, sulphate, chloride, and phosphate of potash; Garlic, sulphate of potash, magnesia, and phosphate of lime; Geraniums, tartrate of lime, phosphates of lime and magnesia; Peas, phosphate of lime; Kidney Beans, phosphate of lime and potash; Oranges, carbonate, sulphate, and muriate of potash; Apples and Pears, malate of potash; Grapes, tartrate of lime; Capsicums, citrate, muriate, and phosphate of potash; Oak, carbonate of potash; and the Lilac, nitrate of potash. Let no one fancy that the salts are a very trivial portion of the fabric of plants. In the Capsicum they constitute one-tenth of its fruit; of Carrot juice one-hundredth; of Rhubarb one-eleventh; of Potatoes one-twentieth; whilst of the seed of the Lithospermum officinale they actually form more than one-half. Their constituents being as follows:—

Carbonate of lime .....	48.7
Silica .....	14.1
Vegetable matter, phosphate of lime, &c. ....	39.5
	102.3

These amounts of earthy saline matters are nearly as much as exist in human bones; but if we turn to the marrow, it only contains one-twentieth of saline matters; the blood only one-hundredth; muscle only one-thirty-fourth; yet no one will argue that these saline constituents, though smaller than those in vegetables, are trivial and unimportant."—(*Johnson's Science and Practice of Gardening*.)

These facts are evidence which cannot be controverted, that plants require a supply of different inorganic foods. Nor is the mode in which these are supplied a matter of indifference. Professor Johnstone proved this. A field of Potatoes was manured alike with forty cartloads of dung. The addition of

Nitrate of soda alone gave an increase above dung alone of .....	3½ tons.
Sulphate of soda alone gave no increase.	
While one-half of each gave .....	5½ tons.
Sulphate of ammonia alone gave .....	1½ tons.
Sulphate of soda, no increase.	
But one-half of each gave .....	6½ tons.
Nitrate of soda alone gave an increase of .....	3½ tons.
Sulphate of magnesia alone gave .....	1 ton.
And one-half of each gave .....	3½ tons.

The suggestion to our minds is this: probably a due supply of saline manures to obtain the natural solid constituents of the Potato, and storing the tubers before the late summer rains increase its watery constituent, may prevent the disease.—*Eda.*]

### ROSE CUTTINGS.

SEEING a few words on growing Rose cuttings on page 89 of the Journal, I think the following may be useful, having been very successful in striking them.

At the beginning of August plant the cuttings in large pots sunk in a shaded border, water well, and cover the pot with a propagating glass. In the middle of October move the pots to a south border, sink them, and earth-up round the glasses, so that no air is admitted, and in frosty weather have a mat thrown over the glasses at night. In this way I have grown

the most delicate Teas, as well as other Roses, with scarcely one failure, and planted out in April strong plants in the open border. They have blossomed well the first year.—A SUSSEX LADY.

### AUTUMN-SOWN ANNUALS—CALLIOPSIS.

MOST of the hardy annuals which are adaptable for autumn sowing are of procumbent growth, and are mainly suitable for early spring-flowering, but the Calliopes are of erect growth, and are not in full beauty until the middle of the summer. They are amongst the brightest of garden flowers, and are exceedingly rich if cultivated in masses, when they are, especially for distant effect, very striking. At the back of herbaceous or mixed borders, or for relieving the sombre aspect of the shrubbery, few, if any, annual plants can compare with these. Neither are they transient, for they continue in beauty almost throughout the summer. They are of the easiest growth, and are not affected by extremes of wet or dry weather to the same extent as are most flowering plants; and, further than this, they will flourish not only in the country, but will also contribute their brightness to town gardens. Their colours—yellow, red, and crimson, separate or in combination—are very brilliant; while in foliage and habit they are, if not elegant, certainly agreeable.

Seed of these plants is generally sown in spring, but in that case the plants are late in coming into bloom. To have them early, continuous, and fine they must be raised from seed sown in autumn; but still sowing must not be deferred until September, which is the right time for Nemophilas, but not for Calliopes. The latter are of very slow growth in their early stages, and, to afford them time to attain a safe size to pass through the winter, seed should be sown at the present time, or not later than August 15th. By late-autumn sowing, and also by spring sowing, I failed with these glowing annuals; but by sowing at the same time and in the same manner as winter Onions I have never failed to have an abundance of plants for planting in March, which commence blooming in June and continue throughout the summer months. If thinned out early the winter's frost never injures them.

Those who covet a great display for a little outlay of money and trouble cannot do better than sow thinly in drills at the present time. The seed must be very slightly covered. The varieties, which are all showy, may be selected from any seedsmen's catalogue according to the heights of plants and the colours which are desired.—A TOWN GARDENER.

### REPORTS OF ROYAL HORTICULTURAL SOCIETY'S FLORAL COMMITTEES.

THE size of the Exhibition on July 21st, and the limited time afforded to report it, rendered it impossible that everything could be noticed. Further, many plants were removed from the Council-room shortly after two o'clock, and others had no exhibitors' names attached, and at that time no one was in attendance to supply information. On August 4th a fine example of *Hymenocallis* candida was credited to Mr. Bull owing to its being near, and apparently belonging to, his collection. The exhibitor's name, Mr. G. F. Wilson, was not attached. The system of numbering will inevitably at times lead to misreporting. Mr. Douglas has stated on page 90 that the system of "attaching numbers instead of names to the plants exhibited can answer no good purpose whatever."—*REPORTER.*

### POROUS GARDEN POTS.

SINCE my former communication was penned I learn from Mr. Thomson of Drumlanrig that he considers his general collection of stove plants, which are potted in glazed pots, to thrive even better than they did in the common earthenware pots, and that he has commenced putting his Orchids in glazed pots also. I would also thank "EX-EXHIBITOR" for his last letter; but I must respectfully decline to accept his simple "I know they [glazed pots] are not safe," as a satisfactory assurance in the face of my own experience and the well-established facts I have already given. His surmises, too, as to what Mr. Dunn or anyone else might do under possible circumstances are surely irrelevant in a question of facts and experiment.

I wish to avoid carrying the discussion into the region of possibilities and mere assumptions. As far as we go let us tread on stable ground. Further, I must disclaim the compliment that the health of our bedding plants, &c., in the

dirty pots is due to extra attention or management, for such is not the case. "OBSERVER" concisely sums-up the advantages of glazed pots, and I must agree with him that there is no valid reason for imagining that a plant requires a porous pot. I accept with readiness the Editors' guarantee of good faith on "EX-EXHIBITOR's" part, and have no hesitation in believing that he states his own convictions, but they are unsupported by reasonable evidence.

It is hardly likely that glazed pots at present prices will supersede the old earthenware; that, however, is not the question, which is—Will a plant thrive as well in a non-porous pot as a porous one? As yet, practical trial answers in the affirmative, and we have not the least reason for supposing that success in any instance is due to an extra effort of skill on the part of those who have tried the experiment.

"EX-EXHIBITOR" is "sorry to see" I have so little respect for "general practice." I believe I share the general feeling of most practical gardeners of estimating every practice by its utility, and not by either its general adoption or its continuance.—J. SIMPSON, *Wortley.*

### ROYAL HORTICULTURAL SOCIETY.

A SPECIAL General Meeting of the Royal Horticultural Society will be held in the Council Room, South Kensington, on Friday, August 13th, 1875, at 8 o'clock P.M., to receive from the Council a statement of the result of their negotiations with Her Majesty's Commissioners, and to consider if they shall approve and sanction the agreements provisionally entered into between the Corporations.

#### HEADS OF PROPOSED NEW AGREEMENT BETWEEN THE COMMISSIONERS FOR THE EXHIBITION OF 1881 AND THE ROYAL HORTICULTURAL SOCIETY.

1. The subsisting agreements to be continued in full force where they are not inconsistent with this agreement.
2. The Commissioners to have the power of determining clauses 6 and 7 of this agreement at the expiration of the third year from its commencement if the income of the Society for that year, from entrance fees and the subscriptions of Fellows and other annual subscribers, shall not amount to £20,000, and the Commissioners shall in that case take upon themselves the repayment of the sum of £7000 hereinafter mentioned, or so much thereof as shall remain unpaid, and the interest thereof.
3. In the event of the Commissioners exercising the power by clause 2 hereof agreed to be given to them, they shall, notwithstanding anything herein contained, be entitled to any right of re-entry which they may, prior to exercising the said power, acquire by virtue of the subsisting agreements, unless the Society shall in the year 1876, out of monies which under those agreements would be applicable to the payment of the rent thereby reserved, and on or before the day on which such rent ought to be paid, pay in respect of interest on, and in reduction of the principal of, the said sum of £7000, the full sum of £2400, which but for this agreement ought to be applied in the payment of such rent; in which case such conditional right of re-entry as is given to the said Commissioners by the subsisting agreements shall be deemed not to have arisen.
4. Save in so far as their claim thereto may be necessary to preserve such right of re-entry as is referred to in the last clause, the Commissioners shall remit to the Society the sum of £2400, which under the subsisting agreements would be payable as rent in 1876.
5. The Society may borrow such sum, not exceeding £7000, as shall be necessary for the discharge of its existing liabilities other than its debenture debt, and for the thorough repair of its buildings at South Kensington.
6. The Society shall not accept any more life compositions without the written consent of the Commissioners.
7. Until the present debenture debt of the Society shall be fully paid off, all sums of money which under the subsisting agreements would be payable to the Commissioners as rent, shall be applied (a) in payment of the interest to accrue upon such sum as may be borrowed by the Society under clause 5 hereof, and in repayment of the principal monies so borrowed until they be fully repaid; (b) for the mutual benefit of the Commissioners and the Society in such way as shall from time to time be determined by the Expenses Committee and be approved of by the Commissioners.
8. Whilst the said clauses 6 and 7 remain in force, the Society shall, on the authorised bank holidays or on such other days not exceeding five in number in any one year as may be

agreed upon by the Society and the Commissioners, admit the public to the South Kensington Gardens free, or at such charge as may be fixed by the Commissioners.

### CATERPILLARS INFESTING GOOSEBERRY BUSHES.

UNFORTUNATELY some perplexity arises from so many persons well acquainted with horticulture, yet ignorant of entomology, confounding the true caterpillar of the Gooseberry moth with the false caterpillar of the Gooseberry Saw-fly. The lime remedy might sometimes be very effective in the case of the former, but is of small service, I think, with the latter species. Then, again, the Gooseberry moth is so conspicuous in its mature state that there is little difficulty in hunting them up in an ordinary garden; the pupa also are very recognisable on the leaves and twigs, and as the larva hibernates many may be destroyed in the winter months. There is really no excuse to be made for the gardener who suffers his bushes to be laid waste by this caterpillar; but the false caterpillar, or Gooseberry grub, producing the fly is not so easily mastered. I fail to see in any plausible theory the value of weeds in approximation to the bushes, though not questioning the apparent facts of the case given by "BETA."—J. R. S. C.

### VERONICA CANDIDA.

REALLY good "edging" plants are not by any means plentiful, more especially hardy ones. This *Veronica* must be included in the most select list of such plants. It is perfectly hardy, and besides having very pretty grey foliage, and being very effective when not in bloom, it is, when in bloom and yielding its dense pyramidal spikes of bluish-purple flowers, which contrast so strikingly with its very light-grey foliage, a very beautiful plant. It is a pity not to let it display its effective blooms; but if wanted for a grey edging only, it is best not to let it bloom. But anyone who has a dense long line of it in bloom once, will be very loth to denude it of its bloom for the sake of its foliage alone. It grows about a foot high, including the bloom-spikes, is rapidly increased by division, requires to be lifted and replanted every third or fourth year, and thrives in any ordinary garden soil.—D. T.—(*The Gardener*.)

### MR. JOHN STANDISH.

PERMIT one who knew our friend for many years to drop a pebble on the cairn to his memory, and to add a few remarks to those very true ones which appeared on page 97. I do this the more because it was through his introduction to those awful personages who rule in Fleet Street that I became a writer in the *Journal*, and to whom I owe some of the pleasantest hours and the heartiest friends that I have enjoyed or possess. I had many opportunities of judging of his character, and I am sure I echo the opinion of all who knew him when I say that a more hospitable and kindhearted man it was impossible to meet.

As a horticulturist, however, we have most to do with him. In one way he was a successful one, but I fear pecuniarily not so. He was a most thorough hybridist, and I can recollect how heartily (besides the flowers you have already named) he entered into the improvement of the *Gladiolus*; but although he raised some fine flowers, yet he was outstripped by Souchet who had the start of him, and later on by Kelway. But he still clung to it; and when Mr. Bull introduced *Gladiolus cruentus* from Natal he thought he saw an opening for bringing in fresh blood, and he set to work with his accustomed energy. We differed as to the probable results, for I maintained, that if it were crossed with those already in cultivation, the fact of its only producing two or three blooms at a time would militate against what we were all anxious to obtain—a long spike of bloom opening at the same time. He thought differently, but as yet no results have been obtained. He had latterly gone into the hybridising of Peas, and had anticipated great results, alas! if achieved to be seen by others and not by himself. He was an enthusiast in his calling, as everyone must be more or less who wishes to succeed; but I never met a more thorough enthusiast than Mr. Standish. Everything must succeed, he thought, which he took up. He saw no difficulties, and with his wonderful energy he oftentimes managed to overcome them. It was a strong proof of his energy that at his years he should have entered upon so arduous an undertaking as that of the Ascot Nursery, reclaiming a wild barren

heath, more especially as he had no family for whose interests he had need to work. What he has done there is known to many; and although I have not seen it for years, yet he has so frequently sent up its productions to London that most people know of it.

I think that one of the happiest moments of his life, in a horticultural point of view, was when he was enabled to exhibit at South Kensington the first instalment of Mr. Fortune's spoils in his second visit to China and Japan. Much elated, too, was he when he first exhibited *Lilium auratum*, and visions of grand results of hybridisation floated before his eyes, but as yet nothing notable has been done with it. He leaves behind him many friends who valued him for many excellent qualities, and both at home and abroad he will be greatly missed. His *bonhomie* made him a great favourite with the French nurserymen; and in a trip which I once made with him as far as Angers I was struck with the hearty manner in which he was received, and also with the fact that at fifty he had set himself so diligently to learn the language that he could make himself understood wherever he went. Rose-growers owe to him the introduction of Eugène Appert, a Rose still grown for its brilliancy, and Céline Forester; while his own achievements as a hybridiser have left their mark on many a flower. He would have heartily rejoiced at the altered aspects of the Royal Horticultural Society, but it was not for him to see, and those of us who are left may well learn a lesson from his energy, intelligence, and kindness.—D., Deal.

### NOTES AND GLEANINGS.

At a meeting of the Committee of the HORTICULTURAL CLUB held at the Club House, Adelphi Terrace, on Wednesday the 4th inst., George Deal, Esq., was unanimously elected a member of the Committee in lieu of the late Mr. Standish, and the following gentlemen were admitted members by ballot:—The Rev. E. Norman, Edgware; C. R. Stewart, Esq., Glasgow; H. C. Wilkins, Esq., Chipping Norton; W. B. Lewis, Esq., Weybridge; the Rev. C. C. Ellison, Bracebridge Vicarage, Lincoln; Capt. Christy, Buckhurst Lodge, Westerham; and H. P. Oakes, Esq., Newton Park, Bury St. Edmunds.

DURING the month of July seventy-two hampers or parcels of flowers were received by the PADDINGTON FLOWER MISSION. The distribution has been:—2315 bunches of flowers to St. Mary's Hospital, Lock, Great Northern, London Temperance, Samaritan Free, Hip Disease, and Gough Home for Children Hospitals; the Workhouse Infirmary, Annuitants, Victoria, Helvetia, Warrington, Mrs. Russell Gurney's, Dudley Stuart, Ladies', Aged Poor, Crippled Girls', Penitents', Deaconesses', and Gentlewomen's Homes; Hyde Park, St. Matthew's, Miss Boyd's, and Miss Cole's Orphanages; St. Mary's Kitchen, Cripples' Nursery; to firemen, policemen, and postmen, and many sick and infirm at their own homes; Servants' Training School, Ragged School, St. Giles's Workhouse, East Street Mission, and Christian Union Almshouses. The offices are at 3, Beinster Street, Cleveland Square, W.

THE PRE-HISTORIC LAKE-VILLAGERS undoubtedly raised Barley, Wheat, and Millet, several kinds of each of these cereals having been found in the lacustrine deposits. Some of these species of grain were cultivated in Egypt, and therefore are believed to have found their way from that country to Switzerland. Rye was not known to the colonists, and Oats not before bronze had come into use. Barley and Wheat appear either in grains, sometimes in considerable quantities, or, more rarely still, retain the shape of ears; and even carbonised Wheat bread, in which the bran and the imperfectly crushed grains can be distinctly seen, has been found at Robenhansen and Wengen. This unleavened pre-historic bread, which is very coarse and compact, occurs mostly in fragments, but sometimes in the form of small roundish cakes about 1 or 1½ inch thick, and was doubtless baked by placing the dough on hot stones and covering it over with glowing ashes. Millet was employed in a similar manner for making bread. It is probable, however, that the lake people consumed their farinaceous food chiefly in the shape of porridge. Carbonised Apples of small size, identical with those growing wild in the woods of Switzerland, have been found abundantly, and in a tolerable state of preservation. Mr. Messikommer discovered on one occasion more than three hundred of them lying close together. They are often cut in halves, more rarely in three or four parts, and were evidently dried for consumption during winter. Whether a larger kind of Apple found at Robenhansen

was cultivated or a wild-growing species remains undecided. Professor Oswald Heer of Zurich, who has published an interesting work on lacustrine vegetable remains, inclines to the former view. Wild Pears were treated in the same manner, but they are far less common than Apples, which must have formed a much-sought article of diet. Among other vegetable remains accumulated in the lake mud may be mentioned Hazel-nuts and Beech-nuts, both in great plenty; also Water Chestnuts, which doubtless were collected and eaten by the lake-men, as they are in Upper Italy at this day. Their present occurrence in Switzerland appears to be restricted to a tarn in the Canton of Lucerne. There have further been found abundantly the stones of Sloes, Bird Cherries, and wild Plums, and seeds of the Raspberry, Blackberry, and Strawberry, showing that these fruits of the forest were used as food. According to Dr. Keller the lake colonists of the Stone Age drew their sustenance chiefly from the vegetable kingdom. Their animal-food evidently was acquired by hunting rather than by the breeding of cattle, considering that in the accumulations around the piles the bones of wild animals outnumber those of the domestic species. Milk, we may assume, formed an important article of their diet.—(*Harper's Magazine*.)

#### AUCTION SALES OF IMPORTED PINE APPLES.

[We are indebted to that very useful Journal "The National Food and Fuel Reformer" for the following notes and illustration of one of Messrs. Keeling & Hunt's sales of West Indian Pine Apples.]

THE sale coming off is the last of the season, the number of Pine Apples to be disposed of by private contract or by auction being not less than 10,000. Mounting a ladder we enter a first-floor apartment, opening out in front to Monument Yard. We tread over a mass of leafy foliage, a number of men being busy in stripping the fruits. Others are engaged in assorting them according to size and quality, and placing the Apples in heaps on racks—"lotting them," as the phrase is. The display, from the nature of the fruit and mode of arrangement, is very effective, and is apt to remind one of a prize show. In the centre and along the sides of the room the fruit rises in pyramidal slopes, the separate heaps, relatively to the mass displayed, answering to the natural excreescences of the rind. The air is heavy with the aroma exhaled from leaves and fruit, and partially developed in the sea passage, for, however airily stored in vessels constructed for the purpose, a certain degree of fermentation, acting artificially as a ripening process, takes place in the holds; and, indeed, were the fruit not plucked before reaching maturity it would never see these shores. As it is, every season—the season for Pine-Apple arrivals extending from the middle of May to the end of July—thousands upon thousands are never landed, having experienced premature decay *en route*, and so are passed from the decks of the fruit schooners on to barges and pitched into the Thames. With an eye to effect, huge bunches of unstripped Pine Apples with fibrous ligaments appended are hung in rows round the roof of the show room, and here and there are set in pots, to appear at some of the splendid banquets of the City guilds.

We now learn something of the extent of the trade. The cargoes of Pine Apples imported last year were fourteen, and the number of Pine Apples 800,000, of the value of £14,000. Last season the losses in Pines that had to be pitched overboard amounted to 40,000. Eleuthera, Cat, Nassau, and Providence Islands in the Bahama group are the chief sources of supply. New Providence has in its eastern districts the largest field of Pine Apples probably in the world. From one spot can be seen at a single glance a million and a quarter of Pine Apples growing. The schooners are some 120 tons each, specially built or selected for the purpose, and are amongst the swiftest sailers, their average run being from twenty-four to thirty days. The extent of the trade acting as an encouragement to growers and shippers, the fruit is brought to this country in as perfect a state as possible. Being fitted up in a superior manner, the beauty and condition of the fruit is well preserved. No time is lost on their arrival in landing, assorting, and disposing of the cargoes. As soon as a Pine-Apple-laden schooner is telegraphed in London preparations are made for sale. All whom the sale concerns—and these embrace, together with wholesale dealers and retail shopmen, the noble army of costermongers, the latter each year taking a more and more important position as buyers—keep themselves well posted as to cargoes reported and landed. The earliest time

when West Indian Pine Apples were imported on any scale into this country was in 1844, and thus the London trade is of comparatively modern origin. Previously the United States merchants held in their hands the monopoly of supply. The competition that thus sprung up, and the enlarged market offered, induced speculators to improve the cultivation. The earlier Pine Apples were very inferior to those now offered, and would set one's teeth on edge. The West India colonists, thus stimulated, not only produce a superior fruit but in greater abundance. Steamers were tried some years since, speed being in their favour; but the heating of the holds occasioned by the steam, and a certain odour from the engine oil easily affecting the fruit and deteriorating its qualities, caused them to be abandoned. On being landed here it is a necessity to lose no time in stripping them. It is as well our readers should know that even the crowns, if suffered to remain, live on the fruit till they have sucked out all its goodness.

We see an announcement of the sale, by Keeling & Hunt of Monument Yard, of 10,000 Pine Apples, and are on hand as the hour approaches and mix with the throng. The time of opening is somewhat delayed, possibly owing to private negotiations. The Pine Apples, the appearance of which we have described, being the last sale of the season, the occasion has brought out some of the principal dealers. Covent Garden is in full force; there are here shop fruiterers from north, east, and west, and from the Borough, and others up from the country. The costermongers have evidently a strong contingent—not that every peripatetic Pine-Apple crier is here, for much of this sale's business is done through representative men, a number clubbing together in the first instance, and buying at auction rates, with a slight commission. Costermongers though they be, none of rough element develops itself, except, perhaps, in sundry jokes, for street parlance has nothing about it of Addisonian elegance or Chesterfield propriety. The great effort of each one having secured a catalogue is, if possible, to get another.

At last, amidst much buzzing and some apparent confusion, the sale commences; not, however, till some apparent sensation has been excited by the entrance of the "Prince of Buyers," the leading Covent Garden salesman in the trade, who is regarded by the mass with an awful reverence, something like that which in the financial line would be accorded to a Rothschild. He takes a central place, with a quiet self-possession accordant with his position. The next movement is on the entrance of a "promoted costermonger," an individual who has advanced himself from a wheelbarrow to a shop, and who as the purveyor of a score of second-class hotels, and with a wide business connection with his former brethren, is destined to be a formidable competitor. Other notable individuals drop in, as rapidly and methodically, the lots are put up and knocked down. The first lots being the best, the bidding for these was with the leading men; presently the chorus of voices swells, till the whole crowd becomes animated and anxious, the rougher sort interspersing their bids with humorous sallies at their opponents, and now and then following this up by pitching at each other crowns of Pine Apples. The auctioneer does not attempt to praise the stock; each man is an expert, but a keen watch is kept on relative proportions secured, especially by leading buyers. To look at the everyday appearance of the buyers a stranger would scarcely imagine that there are men here who could buy shiploads. Presently the bidding grows fast and furious; the good nature that has hitherto prevailed is no longer in the ascendant; the keenness of competition asserts itself, and red faces, contorted visages, and angry looks attest the agitation that prevails.

It requires an expert and practised ear to follow the progress of business as bass and treble notes blend tumultuously, now suddenly settling down, and then renewed, on a new lot being offered, with redoubled energy. Such is the interest exerted by the sale—such, shall we say, market necessities, that the room has long since become crowded. Bids grow to vociferations, especially with the choice lots, and by the time the sale is ended enough physical energy appears to have been expended to make a hue and cry for all the foxes in the kingdom. Some of the buyers have evidently gone in for quality, and buy none but the best; others go in for quantity, doing no business unless they can buy cheaply. The prices brought were fair, and it was really remarkable how cheaply some of the lots went off; but then the fruit trade, and especially the costermonger trade in Pine Apples, is an extremely risky one. With these the ability to sell quickly—and Pine Apples will not last—depends on the weather; and with a Pine Apple once

cut open its aroma rapidly disappears, and dissolution follows. After all, the best Pine Apples in the world, as the best Grapes, come from our English hothouses, and may always be

had "at a price," as the saying is. As these are not for everyone, it is well we secure from 50 to 60 per cent. of the Bahama growth, for Americans are as fond of Pine Apples as ourselves.

Fig. 17.—Bahama Pineapple & HUNT'S HALL ROOM.

Pine Apples from the Island of St. Michael's (Azores) have been sent to London for the last six or seven years, increasing in quantity every season. They arrive (packed in crates containing one to three Pines) by the clipper steamers and schooners employed in the Orange trade during the months of November to April inclusive, are of very fine quality and size, weighing from 5 to 8 lbs. each. In flavour they equal the Pine Apples grown in England, and realise from 15s. to 30s.

per Pine. One sold some seven years ago realised as high as 106s.

#### THE LOWER GROUNDS, ASTON PARK, BIRMINGHAM.—No. 2.

BARROWLY returning to this noteworthy garden, it may be mentioned as an instance of the influence of the Royal Hor-



horticultural Society in giving an impetus to horticultural enterprise, that from the date of the visit of the Society to Birmingham in 1872, the Lower Grounds have become increasingly popular. Before then they were appreciated by the numerous visitors, but their fame was only local, and they were regarded as a rendezvous for recreative purposes more than as an exemplification of superior gardening. But the patronage of the great Society stirred up a zeal for horticulture, and Mr. Quilter, quick to perceive the public taste, and prompt to provide for the gratification of his patrons, determined that the establishment should not only be a garden in name but in fact.

The building which had been erected for the Royal Horticultural Society's Show was left standing. It was strengthened in every possible way, and half of it was covered with glass, the other half left to be covered with canvas to be ready for special purposes and occasions. The glass portion was

divided into two divisions, the one part to afford a promenade in bad weather, and the other to be decorated as a conservatory. This portion, which is 120 feet wide and nearly 800 feet in length, is now made gay with flowers at every period of the year, and besides contains permanent plants of considerable interest and value. Not in many private gardens can be seen such thoroughly healthy examples of *Dicksonias*, *Alsophyllas*, *Araucaria excelsas*, *Strelitzias*, *Aralias*, *Seafortthias*, *Yuccas*, *Agaves*, *Chamerops*, *Coryphas*, *Phormiums*, &c., to say nothing of *Camellias* and *Azaleas*, as are here planted out in this spacious conservatory. The vigour of these plants and their cleanliness betoken that both time and skill are expended on them, and this for the gratification, not of an occasional influx of horticultural visitors, but for the steady stream of the general public who have been taught to admire and become interested in the higher forms of vegetation. Horticulture has thus been brought home to the great mass of the people in

Fig. 18.—ASTON PARK—THE SUBTROPICAL GARDEN.

the best form and manner. To keep this edifice gay and to provide the means of protecting the thousands of plants which are employed in the embellishment of the grounds, other extensive ranges of glass structures are erected. These are admirably adapted for the purpose of miscellaneous plant-growing, and are occupied by collections of plants in the good order usually found in the best-managed private establishments.

But not only are choice collections of plants cultivated for indoor decoration, but the grounds also contain the best examples of flower-garden embellishment. In order to keep pace with the times not only must there be bedding, and ribboning, and carpet gardening, but there must be also a sub-tropical department. Now this, be it noted, is no mere apology for that advanced and deservedly popular mode of garden adornment, but is carried out fully and well. The site chosen is extensive and singularly appropriate, and is, indeed, an agreeable promenade on the banks of the lake, and is alike sheltered from the winds and shaded from the sun by the canopy of foliage of the overhanging trees. It is an agreeable retreat greatly patronised. It was easily formed by taking advantage of the natural features of the place, and turning them to account—features that are existent in many other places, and the idea here given is one that might with advantage be acted on by others who are seeking to beautify their home surroundings.

The plants employed in this section of the Grounds are not inferior to those found in the London parks, and comprise Palms, Ferns, Cannas, Abutilons, Ricinus, *Ferdinandias*, *Dracenas*, *Ficuses*, *Yuccas*, *Solanums*, *Grevilleas*, *Wigandias*, *Acacias*, *Aralias*, &c., which are prepared and arranged by Mr. Spinks in a manner which has won considerable approbation. Besides the sub-tropical there is also the flower garden proper, and which at the present time contains an exceedingly fine example of bedding-out, and which is worthy of inspection by all who are interested in choice and striking floral arrangements. This garden is novel in its way. It is a square of about two acres within lofty walls, and was once the old kitchen garden of Aston Hall. Along the centre of the garden are thrown-up embankments on either hand crosswise and lengthwise, and in the centre is a fountain and a circular embankment. These raised mounds are planted in geometrical patterns, and the effect is singularly striking and good. The quarters of the garden are turfed and formed into sunken panels, and a series of flower beds fringe the walks. It is impossible to give an idea of this remarkable enclosure, the plan of which was so well conceived, and the working of which is so thoroughly carried out. It is an original example of flower gardening, and is admired each season by thousands of visitors.

All who have the opportunity should visit these now historical grounds, and see what can be accomplished by a ready

will and well-applied skill, and to note how perseverance and enterprise in a horticultural pursuit have won success.—W.

## NOTES ON VILLA AND SUBURBAN GARDENING.

### KITCHEN GARDEN.

CONTINUE to earth-up all the forward Celery as time will permit, in order to have it well blanched for use at an early date. The later plantings may be allowed to grow much more before earthing, for as it is required for keeping, the stems become more hardened by long exposure to the air. Plant out a good lot of Endive of sorts on some of the best of the Potato ground. The same sort of ground will do for a bed of Prickly Spinach to be sown now. Onions should be sown shortly for handglasses, and in a short time another little lot sown, to be kept over the winter in frames or under other temporary protection. Cabbage plants for the spring bed must be raised at once and the ground be prepared for the plants. Lettuces may now be sown in quantity, to be planted out for autumn and winter use; good sorts are Lane's Bath Cos and Hardy Green Cabbage Lettuce. For this planting I like the soil to be firm at planting time, but it ought to be pretty good; merely pointing the surface soil up of sufficient depth to insert the plants will do. I of course allude to a soil that has always been well worked. Under such conditions the plants do not grow so large, but they become firmer in texture, and are therefore better able to bear the winds and wet of early winter.

Continue to plant out Savoy, Coleworts, and Asparagus Kale. The frequent showers we are having will start them well. Sow seed of Tripoli Onions for spring use. All the forward Potatoes have been taken up, and so far are nearly free from the disease. The late sorts have not escaped, but if they were ripe I would take them all out of the ground, or treat them the same as Mr. Durey does at Hothfield. He pulls the haulm out and earths the rows up sharp and high, leaving the tubers there for a long time. He says they keep better in this way than any other.

### FRUIT GARDEN.

The wood of wall fruit trees in general should be constantly kept nailed-in. Strong shoots of Peaches and Nectarines often throw out many laterals, which should be pinched out at the lowest bud, and all other wood not likely to be wanted may be cleared out with advantage to that remaining. Always be careful of the foliage. Place a net over all trees with fruit ripening; the hexagon netting is the best, as it admits plenty of light and air, as well as keeping away flies and wasps. Plant out young Strawberries at once from those which were layered in pots. Take care not to plant too deep. The crown of the plant should be left well up, so that it may receive all the sun and air possible. Those required for forcing must be potted-on in the same way, only the soil must be made firm in the pot, and afterwards the pots be stood upon a hard bottom, so that they cannot root through; they will then make good plants with well-formed crowns.

### FLOWER GARDEN.

Should the weather prove fine now the bedding plants will be in great beauty for some time to come; and as most of the Pelargonium class have grown considerably they will need a little regulating, and in some cases cutting back. These shoots so taken off may be struck, as it is now time to think a little about propagating for next season's supply; but before doing that it is advisable to first determine what alterations, if any, are needed in the arrangement and associations of colours, and marking any deficiency in the growth of any plant, so that a more perfect system may prevail another year. By this mode much inconvenience will be spared in keeping useless plants over the winter. Give a finish to all parts of the garden by attending to neatness and order. Edgings of beds should be smooth and trim, and walks clean and free from weeds, and a garden will yield additional enjoyment.—T. RACON.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

THE fruit room should now be thoroughly cleansed, if it has not been already done; the walls whitewashed, and the stages, floor, &c., thoroughly scrubbed with a stiff brush and hot soapy water; the doors and windows ought to be opened in fine weather afterwards to allow of it becoming thoroughly dry. The earliest Apples and Pears are now ripening, and are gathered as soon as the stalks part freely from the branches; the trees require looking over every day, as a very slight wind causes the fruit to fall off.

The Apple first to ripen is the White Joanneting; it is best gathered from the tree and used at once. Early Red Margaret is the next, followed by Red Astrachan, and but very little later the Irish Peach; the last-named is only a week or ten days later than the Red Margaret, but it is by far the best for flavour. Some of the fruit was ripe about the last day in July, and a large

basket was gathered on the 5th of August. At the same time as Irish Peach the Early Harvest was gathered. This is also a very excellent Apple. A tree of each of the above should be grown in the most select collections, except, perhaps, the Astrachan, for the tree is of very vigorous growth, which is not a point in its favour, except for orchards; its fruit is the most beautiful of all, but the beauty is only skin deep, the fruit being too acid for dessert purposes.

Doyenné d'Été Pear is nearly over, but an old tree of Jargonelle that ripens its fruit ten days before another that was planted ten years ago is now producing ripe fruit. The old tree has passed the meridian of its life, and does not make much growth. In taking a tabulated estimate of the time of ripening of different varieties the probable age of the trees ought always to be taken into account.

Old trees on walls have not required any attention as to nailing or stopping of growths. A tree in full bearing does not make much growth, for when the fruit has taken its second swelling all the vigour is required to ripen-off the fruit. Young trees continue to grow until stopped by autumnal frosts; the growths should be nailed into their places, also the autumn gales, which are not far distant, make sad havoc. Leading growths must have special care taken of them, as on the care exercised in training them correctly the symmetry of the tree depends. All robust growths should be stopped up to the present month; after the 1st of August no young growths should be stopped.

Many of the old-fashioned gardeners, and some of the more modern school, would not stop the growths, but permit them to run 6 feet or more, and then cut back in autumn or winter. A wall tree under proper summer pinching will cover a wall in less than half the time that it would take to do so by the old system of allowing all the leading growths to mature without stopping. Take, for instance, a Pear tree horizontally trained to a brick wall 12 feet high; it has a leading growth in the centre, and two side branches opposite to each other to start with. Now we want to place branches opposite to each other, and at 9 inches apart to the top of the wall. To do this the leader is cut at 9 inches from the first pair of branches; a number of eyes will start, but three growths only are saved, one to form a leader and the others for side branches. Now, if the leader is not stopped no more side branches will be formed that year; it may grow 6 feet or more, but no side branches will be formed. It is again cut down to 9 inches at the winter pruning, and the same process of training is repeated annually, and only one pair of branches is formed each year. Now, instead of letting the leader run away let it be pinched back, and three pairs of side branches may be formed instead of only one pair, so that by pinching the tree will do as much in one year as it would in three by the other method.

Apriots are now ripening, and some of the earliest Plums. It will be necessary to protect them by hexagon netting from birds, and the choice Apriots must be covered with gauze to preserve the fruit from flies. It is a good plan to mulch the borders with litter; this prevents evaporation and protects the fruit that falls from being bruised.

### VINERIES.

We do not have much warmth by day, and it has been so chilly at night that it is quite necessary to use artificial heat both in the Hamburgh and Muscat houses. A circulation of air is kept up by opening the front and back ventilators a little, and this circulation is further promoted by the heat in the pipes. Grapes colour best in well-ventilated houses, and a constant circulation is necessary. We fancy that black Grapes finish best in dull weather, sunshine in abundance being requisite for Muscats and all the white varieties. Trebbiano, White Nice, White Tokay, and others of this class seem to require more heat to ripen them than the Muscat of Alexandria, and, as a rule, when they are ripened the flavour is not superior to the Almería Grapes that are sold at a shilling a pound in the winter. In Essex Muscats can in most seasons be ripened very well without any artificial heat after the fruit is set. This year the sun heat has not been sufficient to ripen them.

It is now a good time to have the early vineries painted. If this is deferred until later the work cannot be done so satisfactorily; the lights ought to be taken off, so that the paint may reach all the crevices. In fine weather all the permanent work may be done; the lights to be placed in a dry place and reserved to the last in case the weather should be wet. Early vineries suffer more than later houses; much heat and moisture early in the year is very trying to the paint. They ought to have three coats of good paint outside and two inside every three years.

The pot Vines intended for early forcing have now nearly ripened their wood. Water more sparingly at the roots, maintain a drier atmosphere, and ventilate more freely. The buds are now being formed for the future crop.

### CUCUMBER HOUSE.

It seems almost needless to say anything about culture at this season, as any cottager with an ordinary box-light can easily supply his family with Cucumbers at this season, but we are

tempted to notice them because the variety Tender and True raised at Loxford has been exhibited badly at a time when Cucumbers can be grown without difficulty. When this is the case the first thing is to blame the seed. Now until this year the true stock has been grown at Loxford from cuttings, but the stock was lost last winter, and we were in the same position as any other gardener, and had to trust to seeds obtained from Messrs. Veitch of Chelsea, and the Cucumbers obtained from their seeds were not different from the original stock. It was truly said by a good judge "that there are no bad sorts of Cucumbers; the fault is always in the culture." The miserable specimens of Duke of Edinburgh exhibited at South Kensington for Mr. Monroe's prizes go a long way to justify this expression. Cucumber plants in houses require to be kept free from insect pests, and the house ought to be ventilated pretty freely all through the summer months.

#### GREENHOUSE AND CONSERVATORY.

If a good supply of flowers have to be kept-up during the winter and spring months, the plants intended to produce the supply must now be attended to. Of the most useful may be named *Cyclamens*. These continue to flower freely from Christmas until the end of March, and may now almost be said to be indispensable for cutting from. We are now repotting them, 8-inch pots are the largest used, and our largest plants have been in that size for two years, so that the corms are large. The ball is reduced to allow of some of the potting material being placed under it, and about an inch in width all round the sides. Younger and smaller plants that are now in 5-inch are repotted into 6-inch pots. It is not necessary to allow very much pot room for the Cyclamen, but the pots are well drained, and the drainage is protected by good fibry loam being placed over it. The plants grow and flower well in a compost of turfy loam three parts, one part leaf mould, and a liberal addition of sand if the loam is not naturally sandy. A little rotted stable manure may be added, but it is not necessary. The plants will not succeed if they are not placed near the glass and slightly shaded from scorching sun.

*Primula amana* and its varieties serve to keep the houses very gay in April, but the plants are frequently neglected after the flowering period; red spider, a desperate enemy of this plant, being allowed to feed unmolested on the leaves. The plants ought to be placed in a cool frame in a shady position, and the leaves must be kept green until growth is completed. They are also being repotted in similar compost to the Cyclamens, and the other treatment as to size of pots, &c., is not materially different. Cinerarias are another useful class of plants for winter and spring flowering. Plants raised from seed grow most freely, and if the seeds are sown in April very large plants may be produced by September; a succession may then be obtained from October until April. Specimen plants of *Chrysanthemums* that have been allowed to grow without much training until now are having the rambling growths brought down. Those plants intended for cut flowers have the upright leading shoots trained to sticks, and the side growths pinched back.

Fuchsias and Zonal Pelargoniums in endless variety now serve to keep the show houses gay.—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

NATIONAL ORNAMENTAL AND POOTER SOCIETY.—August 18th and 14th, in Manchester Botanic Gardens. Rev. F. D. Horner, Kirby Malsard, Hon.-Sec.

BURNOPFIELD.—August 14th. Mr. J. Hood, Sec.

IDLE.—August 14th. Mr. H. N. Illingworth, Sec.

CARTWELL, NORTH LANCASHIRE.—August 14th. Mr. W. Cragg, Hon.-Sec.

COVENTRY (at Coombe Abbey).—August 17th. Mr. T. Wigston, 8, Portland Terrace, Sec.

DOVER.—August 18th.

NORTHLEACH.—August 18th. Mr. J. Walker, Hon.-Sec.

CHARD.—August 18th. Mr. T. L. Brown, Hon.-Sec.

MASTBOURNE—in the Devonshire Park.—August 19th. H. A. E. Rumble, Esq., 26, Hyde Gardens, Sec.

GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.

PONTPOOL.—August 19th. Mr. Ernest Deacon, Hon.-Sec.

ULVERSTON.—August 20th. Mr. Geo. Higham, Hon.-Sec.

CONISTON.—August 24th. Mr. Jas. Dickinson, Hon.-Sec.

HARTLEPOOL.—August 24th. Mr. Connelldor H. Magoris, Hon.-Sec.

NEWBURY.—August 24th. Mr. H. Seymour, Hon.-Sec.

BURTON-ON-TRENT.—August 25th. Mr. W. Shave, Sec.

ISLE OF THANET (St. Peters).—August 25th.

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

HEAVIEST STRAWBERRY (S. W.).—We have no remembrance of the statement you mention. An experienced gardener informs us that he once knew two berries of the Oscar weighing 10 ozs., the largest of them weighing 5½ ozs.

TRAY OF POT-HERBS (J. Hirst).—Not knowing the exact terms in which the prize is offered, we can only say that Angelica, Borage, Chervil, Marjoram, Mint, Pennyroyal, Parslane, Sage, Savory, Tansy, Tarragon, and Thyme are pot-herbs, and that the prize probably will be given to the most numerous and best-grown collection of them.

EARLY RIVERS PRACH WITH SPLIT STONES (P. P.).—This variety is peculiarly liable to be affected in this way. We have fruited annually for the last five or six years in the orchard house, and seldom have less than half of the fruit with split stones. This year only two or three fruits were sound and the tree had a good crop. We do not know any remedy. The cold wet season is probably the cause of it being so bad this year.

PRACH LEAVES GLAZED (G. S.).—We believe that the syringing is the cause. You say the trees are not syringed after being removed to another house, but they must surely have been syringed previous to this, else how are the leaves free from spider? If "the roof is frequently syringed with whitewash," this would be washed into the tank, if you have any; or if you use hard water, the sediment might be in that. If this is not the case we cannot account for it on the data you have given us.

PRACH FAILING (A. A.).—The stems and leaves become yellow because the roots cease from supplying them with sap. If the surface soil over the roots was mulched, and water given copiously in dry weather twice weekly, there would be no such failure.

BRICKLAYERS' RUBBISH (Jones).—The limy portion of it is a useful manure, but the brickbats are useless except to fill underground drains or to add to the subsoil of Vine borders.

GRAPES DECAYED (Mrs. G.).—The Grapes sent are in a deplorable state. If they are a fair sample of the crop we can only say that it is valueless. Grapes so extensively diseased are incurable. Cut out all the worst bunches and relieve the Vines of their burden by way of preparing them to bear better fruit next year. The fruit appears to be affected by shanking, rusting, scalding, and we suspect also the attacks of thrips. If they are infected by insects (of which we cannot absolutely determine without seeing the foliage) smoke the house and syringe thoroughly—almost violently. Remove also the surface soil from the border, and replace with 5 or 6 inches of rich manure to afford nourishment to the roots. Admit air freely yet judiciously—that is, do not close the house entirely at night, and increase the ventilation very early in the morning. If the growth is thick and overcrowded remove a portion, so that all the principal leaves can have the benefit of light. By this practice the Vines may be restored. Free root-action, pure air, light, a genial temperature, and freedom from insects, must all be provided to insure healthy Vines and satisfactory Grapes.

NECTARINES AND APRICOTS FOR MID-YORKSHIRE (S.).—Of Nectarines you mention—Balgowan, a Scotch-raised variety; Hardwick, very hardy; and Elruge. Of the Apricots the Large Red.

GRAPES PARTIALLY SHANKED (A. B.).—The roots do not supply sufficient sap to sustain so heavy a crop. Water copiously with tepid very weak manure water. We advise you further to remove entirely the bunches which are the most affected, even to the extent of one-half of the crop, not only for the sake of those remaining, but in the interests of the Vines, which are greatly overcropped.

INSECT PREVENTIVE (E. M. M.).—Two ounces of soft soap dissolved in a gallon of water, and this mixed with another gallon which has been poured when in a boiling state on 2 ozs. of strong tobacco, will provide the liquid you require. If it is warm, say at a temperature of 100°, when used, no sediment will be left on the foliage. You cannot do better than follow the advice which you quote, and you will not be troubled with insects.

CUCUMBERS NOT SWELLING (X. Y. Z.).—The atmosphere of the house is too cold and moist. Give them more air, to do which you will probably have to afford more heat, and especially bottom heat, keeping that steady at sun from 75° to 80°; the top heat 65° to 70° at night, 70° to 75° by day without sun, and 85° or 90° with sun and a full amount of air. Leave a little air on at night and in dull weather, and shut-up early in the afternoon, damping the house two or three times a day, and especially at closing time, so as to maintain a congenial atmosphere. The bed should be kept well watered, but avoid making the soil sodden.

LORD GROSVENOR APPLE (E. N., Hamburgh).—It is known in England by the name of "Jolly Beggar" also. The following is the description of it in Dr. Hogg's "Fruit Manual":—"Fruit, about medium size, 3½ inches wide, and 3 inches high; roundish. Skin, pale yellow, with an orange tint next the sun. Eye, large and open, set in a plated basin. Stalk, half an inch long, rather deeply inserted. Flesh, white, tender, juicy, sweet, bristly and pleasantly flavoured. A first-rate early cooking Apple from August till October. The great merit of this variety is its great fertility, the small bush trees producing an abundance of fine yellow fruit. The tree bears very early, and is one of the most useful for garden culture."

HARDY AND HALF-HARDY PLANTS FOR BEDDING (L. MacG.).—As you wish for foliage more than flowers, our list is framed accordingly—*Alyssum* (Konign) variegata, \**Antennaria tomentosa*, for edging; \**Arabis alpina* variegata aurea, \**A. mollis* variegata, *Centaurea candelabrum*, *C. rugulosa* compacta, \**Cerastium tomentosum*, \**Cineraria maritima*, *Coprosma Buergeriana*, \**Dracopis glomerata elegantissima*, \**Eucynonum radicans* variegata, *Frederick Landeri*, *I. Herbati*, *Meibomiaanthum cordifolium* variegatum, *Polemonium oerulesum* variegatum, \**Pyrethrum Golden Feather*, \**Sempervivum californicum*, *Senecio argenteus*, *Stellaria graminea* aurea, \**Thymus citricolor* aureus, \**T. citricolor* marginatus, \**Thymus Golden Fleecy*, \**Viviana elegantissima*, and *Dell's Crimson Beet*, and *Perilla nankinensis*, which may be raised from seed. Those distinguished by an asterisk are hardy. *Pelargoniums* Annie Keeler, Miss Batters, and Prince Arthur. Those have golden leaves with bright zones. Silver-variegated are Bijou, Bright Star, and Queen of Queens, Prince Silverwings being effective; and in the Golden-leaved we shall only name Crystal Palace Gem.

**PLANTS FOR GREENHOUSE (P. F. S.).**—We should provide a dozen at least of *Thou*, and half a dozen of *Spotted* and *Fancy Pelargoniums*, a like number of *Tricolor*, *double-flowered*, and *Zonal Pelargoniums*, a dozen *Fuchsias*, *Cyclamen persicum* var., *Primula sinensis*, *Cinnsia*, *Calceolarias*, and *tree Ornations*. These are all of easy culture, and after you have provided yourself with them you will probably have little space left; or you may so limit the number of those named as to leave space for others, a few of which are—*Azalea armata*, *Chorizanthe cordata splendens*, *Conna Brilliante*, *Cypripedium pubescens*, *Dracophyllum gracile*, *Epistola floribunda*, *Gesneria tulipifera*, *Hydrangea hortensis*, *H. stellata* *flor-plena*, *Kalanchoe crotolaria*, *superba*, *Liliodora floribunda*, *Nerium rubrum* *plenum*, *Pimelea decussata*, *P. spectabilis* *rosea*, *Polysiphia Dalmatiana*, *Rhododendron jasmiflorum*, *Statice profusa*, and *Valloia purpurea*. *Andreas*, *Orterion*, *Duchesse Adelaide de Nassau*, *Narcissus*, *Madame Van Houtte*, *Ferdinand Kauljan*, and *Stella*. *Camellias*—*Alba-plena*, *Fimbriata*, *Valtaredo*, *Raffa*, *Methuana*, and *Mrs. Cope*. *Briosa castra*, *E. gracilis*, *E. hyemalis*, *E. melanthera*, *E. hybrida*, and *E. ventricosa Bothwelliana*. *Eparis* *colipae*, *E. The Bride*, and *E. hyacinthiflora*. From the above you may select, as we have probably named too many.

**PELAGONUM CUTTINGS (Idem).**—Three parts light turfy loam, and one part each of leaf soil and silver sand. Insert the cuttings around the sides of pots well drained, placing them in a cold frame and keeping close, but avoiding damp. Our "Garden Manual" would suit you. It may be had by post from our office for 1s. 8d. Dixon's "Treatise on Tricolor Pelargoniums" will meet your requirements respecting these plants.

**LAWN UNLEVEL (H. A. P.).**—The only plan will be to remove the turf in the autumn, and fill up the holes and make the surface even, and then relay the turf. The soil used for filling-up the hollows should be made firm, treading well before laying the turf, for if only loosely filled the soil will settle, and irregularity of the surface will again follow.

**NAMES OF FERNS (Idem).**—1, *Pteris serrulata*; 2, *P. serrulata cristata*; 3, *Adiantum formosum*; 4, *Asplenium bulbiferum*; 5, *Polystichum angulare proliferum*; the flower is a *Kalanchoe*, probably *coccinea*. All the specimens are poor, and not in character sufficient for correct identification.

**PEA (W. A.).**—We cannot name a PEA from the pods. The varieties are too numerous, and many too nearly alike.

**PELAGONUMS AND CINERARIAS (E. M.).**—The Pelargoniums you may keep in your greenhouse providing they have an abundance of light and air. If this cannot be afforded stand them in the open air in the full sun. The Cinerarias will be better in a cool shaded place out of doors than in the greenhouse for the next six weeks. They must not be under trees or they will not have the benefit of night dew, which is very refreshing to these plants.

**PROPAGATING CLEMATIS (An Amateur).**—Layers made in September, or cuttings now of firm short-jointed side shoots taken off close and inserted in light sandy soil under a handlight in a shady place, or shade from bright sun. The layers should be of the ripe wood of the current year—short-jointed wood, and have a tongue or notch below the joint lagged in the soil.

**PERPETUATING HERBACEOUS CALCEOLARIAS (J. H.).**—The proposed keeping of the plants that have bloomed, for next year's display, is not new, but is now discarded from the fact that seedlings are much more beautiful, blooming stronger and better in every way than the old plants, or plants from cuttings taken from them. We advise you to throw them away, and raise plants from seed for next season's showing.

**CONSTRUCTING HARDY FRERNERY (Old Subscriber).**—There is no objection to the Oak trees providing the situation be sheltered from cutting winds, for a bleak exposed position is not good for Ferns. The essentials of a hardy fernery are shelter, as that of a hollow, rock, or raised ground, shade from scorching sun, and constant but not stagnant moisture, for Ferns are not bog plants, the water being required to percolate freely. If you do not propose to have rockwork, we should at least form a bank or earthwork, which will answer for the stronger-growing, but not for the smaller kinds of Ferns, which require rockwork, for the which you may possibly find some boulders, and these cropping out here and there will add immensely to the appearance, the form being given by any kind of rough material, as clinkers, stones, rubble, &c. You should provide drainage sufficient, and 9 inches to a foot thickness of soil, but where you have rock it will suffice to have a less thickness of soil; or if the boulders be large you will not require soil before placing them, but merely fill the interstices, and place in any openings or upon ledges that may be formed by the rock. Two parts fibrous brown and sandy peat, with one-third yellow fibrous loam, will grow hardy Ferns well except a few kinds, which require limestone.

**SEEDS FROM SIAM (—).**—From the description you had with the seeds the plant is probably *Holmbooldia scandens*, a climber with scarlet flowers. We should sow the seeds at once in pots, covering them with soil about half an inch deep, and place in a brick bottom heat, as that of a hotbed; or they may germinate in a warm part of a stove. They should be kept moist, and when the seedlings show the second leaves transfer to single small pots, returning to the hotbed, and keep rather close and shaded until established, and then transfer to the stove. We should advise you to only sow a portion of the seed at this time of the year, retaining a part for spring sowing, as the plants are more likely to fall sown now from damp, &c., than were they sown in spring. Equal parts of sandy peat and light fibrous loam, with a sixth part of silver sand and good drainage, is a compost to grow the plants well.

**VITIS ODORATISSIMA CULTURE (S. E.).**—Train the shoots about 18 inches distance apart—that is, the permanent shoots, and the laterals from them stop at one joint. These shoots or canes will push numerous shoots next year, which should be rubbed off, so as to leave them a foot apart on opposite sides of the cane, or rod as it is after a year old, and have the shoots neatly trained to the wall. Stop each shoot at the sixth leaf if no flower appear when that length of growth is made; but there will be at that or thereabouts if the wood be ripe. Keep the laterals moderately stopped, for upon them, as well as upon the first shoots, will appear clusters of fragrance; reducing them in autumn, so as to admit air and light for the ripening of the wood of the principal shoots, which should be cut back to two eyes after the leaves have fallen.

**DUCHESSE DE CAYLUS ROSE (Idem).**—Place it outdoors in an open situation, and keep well supplied with water, potting at the close of September; and in October place in a cold frame, with the pot plunged in ashes, and in January prune and place in a light airy position in the greenhouse.

**BARREAN ROSES NOT FLOWERING (X. Y. Z.).**—Train the shoots rather thinly, so that they may be full, exposed to light and air, and the wood thereby thoroughly ripened. The situation or aspect should be a warm one—

south or south-west. Prune but little, merely cutting out any worn-out shoots and the unripe points of the shoots of last year's growth, the pruning being deferred until spring.

**WINTERING ALTERNANTHERAS (Idem).**—Take up before frost, pot singly, and place in a house having a temperature of 56° to 58° from the base, watering so as to keep fresh, but on the other hand avoid too much moisture at first, or the plants will damp. They are best upon a cool bottom, and after the turn of the year encourage with more moisture and heat, so as to foster growth for cuttings. The Lobellias should be potted in the same way, and be kept in a light airy position in a house from which frost is excluded.

**LILLUM AURATUM FLOWERING OUTDOORS (E. T.).**—It is not unusual, or only so because this beautiful kind is not more generally planted outdoors, where it thrives remarkably well; it and many others thriving well in the open spaces in Rhododendron beds or anywhere, the soil being rich and light.

**ROSE MEDEWIND (Idem).**—The leaves show mildew, and is unquestionably a result of a poor soil and the want of moisture. Water freely in dry hot weather, and after the buds show, with weak liquid manure twice a week, or sprinkle guano lightly around the bushes, and wash in with water. It is necessary in the evening of hot days to water overhead, except when in bloom. The soil would be the better of a good dressing of manure. The mildew is a consequence of the dry east winds that prevailed some time ago, followed by the heavy rain.

**OLIMBER PROPAGATION (A. T. W.).**—Take cuttings of the current year's shoots when they are about half ripe, and insert them singly in small pots in sandy peat and loam, and place in a bottom heat of 60°, and cover with a bell-glass if in a house, but in a shaded hotbed the moisture will be sufficient to maintain the leaves fresh without resorting to the bell-glass. In inserting the cuttings let the base of each rest on sand and be surrounded by silver sand. Cuttings of the firm young shoots root freely in phials of water placed in heat. Either mode may be practiced now if your plants have the wood of the proper degree of ripeness.

**POPPY (Idem).**—The kind with large scarlet flowers 9 inches across is *Papaver bracteatum*, and the yellow the Iceland Poppy, *P. nudicaule*. Seed of the first-named may be had of most seedsmen, but of the latter seed is not, that we are aware, sold, but plants may be obtained of most nurserymen at a very moderate price.

**GRAPES CRACKING (J. E. W.).**—We should not attribute the cracking to the dryness of the border now; but from its having been dry during the first swelling of the berries, and now they are taking the second swell the border, from the excessive rains, being very wet, the atmosphere also moist, would appear to us the cause of the cracking. Apply more heat, so as by freer air-giving to keep the atmosphere less close and drier.

**POMEGRANATE NOT FLOWERING (E. D. R.).**—It does not flower because the wood is not thoroughly ripened. Against a south wall in your climate it would probably flower well were you to encourage the small twiggy growths and restrict the stronger shoots. If you wish to keep in a pot, place it in a light airy part of the conservatory, afford water only to keep it from flagging, and in winter keep dry. When it begins to grow in spring repeat, and encourage growth in a moist growing heat, as that of a vinery, and when the pot is full of roots remove to the conservatory, assigning it a light and airy position. It is not necessary to place in heat if the plant is not disrooted, which we advise, so as to keep in a moderate-sized pot. Pruning is to be done in spring, preserving a majority of the twiggy shoots.

**DESTROYING ANTS (Subscriber's Daughter).**—Trap them, saucers of salad oil being placed so as to allure and drown the industrious but annoying and destructive creatures. The oil will need to be renewed occasionally, as the ants will not enter to partake of it when rained. The White Mullein (*Verbascum Lychnitis*) is not rare but local in its distribution, yours being a new locality for it.

**NAMES OF PLANTS (Orateur).**—*Escallonia macrantha*, introduced from Chile in 1847. It requires a south wall and the protection of a mat in severe weather. (*J. Kerslake*).—The *Michaelmas Daisy* (*Aster tripolium*, L.). (*E. J. S.*).—Your second batch of Ferns does not correspond altogether with that previously sent, which we named in *Journal of Horticulture* for Aug. 6th. No. 2 of last lot is *Asplenium viviparum*. (*Mrs. Cheamley*).—Yes, a Spirea, but we cannot determine the species from specimen sent. (*Thos. O'Grady*).—*Rubus odoratus*. (*G. B.*).—1, *Lepidium Draba*; 2, *Geranium dissectum*; 4, *Beta maritima*. Remainder quite unnameable. Grasses apparently dried for ornamental purposes. (*G. P.*).—*Escallonia macrantha*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### MOULTING.

**FEATHERS everywhere**—in the houses, in the runs, in the dust-baths. We are glad to see them. We watch our birds becoming daily more ragged and more naked with the greatest pleasure. We delight in early moults, and we believe they will be general this season. These hot suns succeeding the late severe rains seem to have had a wonderful effect upon the birds, and the moult is feathers everywhere.

Last year the moulting was a late one. We had birds not ready to show till January, and it was a recognised fact that at the Palace the majority of the old birds wanted five or six weeks more to attain their full plumage. To have valuable show birds well over their moulting is a grand thing to accomplish, for the winter successes depend upon it to a great extent. It is not a very easy thing somehow to have highly-bred fowls well over their moulting, for many a good bird succumbs in inexperienced hands. We have known people buy-up valuable birds, exhibit them through the summer, and then expect them to come out as fresh as ever in the autumn dressed only in fresh feathers. Alas! they are often disappointed, for the bird is perhaps two or three months perfecting his plumage, and when it is fully grown it often looks patchy, or many of the feathers come discoloured, and the whole effect is rough.

We are convinced that birds which have been exhibited much during the summer usually moult-out but badly. They seem to lack strength to form new feathers quickly, and often waste away. We have noticed time after time individual birds which have won in August and September, but have not been fit to show again till January.

The plan we always adopt is, about the first week of August to turn all our hens together into a good orchard near where there is a house large enough to accommodate them all, and there we leave them to moult naturally, feeding them well but not giving them enough to make them sleepy or fat—we are here speaking of the large breeds of fowls—and letting them have a copious supply of clean water. We do not pretend to recommend any particular feeding. This must be left to the discretion of the manager, as different birds and different strains have different peculiarities, and consequently here the manager must use his judgment; but we again state the hens must be kept in good order, and allowed to become to a certain extent heavy without approaching the possibility of being internally fat.

When we find two or three hens are losing their feathers faster than the rest and seem to be going in for a quick moult, then we take those away and place them in enclosed shady runs about 8 feet square, where there are no draughts, and get them on as fast as possible for the early autumn shows. The floors of these pens we make 4 inches deep of clean sand, and cover the top with coarsely-cut straw chaff. We find generally the birds which have to come to these little runs to be made ready for the early shows are those hens which have not been exhibited for some time, and which have been allowed to have broods of chickens. The remainder of the hens moult-out, as we said before, naturally in their large run, and are singled out later on for the breeding or show pen as required.

In the case of all light-coloured birds we would be careful not to use maize in excess. We have seen many a bird ruined, especially cocks, for the show pen for the year, through the excessive use of this food, for it has a very bad effect on the feathers and makes them yellow and coarse, and in White birds often almost straw-coloured.

Thus much for our treatment of hens in the feathering season; now for a word about the cocks. We find small runs best for them; in fact, the large feathered-legged breeds should always be kept in such places in the moulting season, and when once the feathers begin to drop it is surprising how quickly they get their fresh ones when thus confined. If there are many cocks to moult, and the number of these pens is limited, we have known large exhibition baskets used with success. We do not mean a bird is to be kept in one during the whole of his moult, but by keeping a cock in one for three or four days, and then putting him in a run, taking the cock which has been living in that for a little sojourn in the basket, and so changing them about, seeing at the same time they are kept clean and well-attended to—we have, we say, thus often known many valuable birds belonging to people with but very small accommodation brought successfully through the moult. We feed the cocks on the same food as we do the hens—good sound ground and whole corn, with a little Spratt's, but we sometimes add a pinch of some condiment if they seem to be at all dull, and this often appears to give the new feathers a fresh start.

Those who want to put up a certain cock over a year old for breeding early January chickens, we would recommend to let such a bird moult as naturally as possible, and not exhibit it till the required chickens are hatched. We are sure that cocks moulted in places heated artificially or treated in any way contrary to nature, or, again, cocks frequently exhibited in November and December as soon as they have their new feathers, are but very rarely the fathers of early chickens, for in runs where this has been the case we have repeatedly noticed sitting after sitting of clear eggs. It is consequently important to have the birds to be bred from well over their moult early, and then reserve them entirely for the breeding pen. If hens have laid just before they begin to moult it is often a good plan to let them sit on nests of china eggs, keeping them in good condition all the time. The old feathers seem to come off so cleanly, and the new feathers sprout up as thickly as possible. We shall never forget going to see Mr. Pares in 1869, and finding in July all his champion Brahma hens sitting to assist them over their moult in good time. We have found, too, that a frequent application of sulphur ointment to the legs of the feather-legged varieties is often of great service during the moulting season, as it keeps the legs free from coarse scales and scurf disease, and seems to help the growth and development of the foot and leg feathers at the same time.—W.

#### ALEXANDRA PALACE POULTRY SHOW.

As will be seen by our advertising columns the arrangements for this Show have been concluded, and the Exhibition will be held, as originally announced, on the 19th, 20th, and 21st of October, 1875. All the poultry classes are to be for birds bred

this year, and there will also be classes for many varieties of young Pigeons.

As this will be the first show of chickens held in London—in fact the first great chicken show of the season—we may expect to see most of the future champions brought out which will do battle for their owners at the principal winter exhibitions, especially as we hear the cups are to be very numerous, and the money prizes of considerable value.

#### ALFORD SHOW OF POULTRY, &c.

THE annual Show was held at Alford on the 8th and 4th inst. in an extensive pasture close upon the town. Considering the population is so sparse in this locality this was a spirited venture, and the spirit and energy of the Committee most commendable. The pens were Billett's of Southampton, and were well arranged in double tiers in the centre, and singly on the sides. In poultry the entries were not large, no doubt on account of the occurrence of other shows at the same time; they were 163 in all, but the winners were generally good.

Of *Dorkings* two pens were good and the rest rubbish. *Cochins* poor, except the first, a fair pen of Buffs. In *Brahmas*, Light, the first were a good pair, the second a grand cock with a hen in fine feather, colour, and marking. This must be a very late-hatched bird of last year. *Brahmas*, Dark, were pretty good but a little shabby in feather. *Spanish* a grand lot; three entries. In *Red Game* cocks the winner of the cup was the bird in the same position at Doncaster, a Brown Red, and Game all over; second a capital Black Red, and third Brown Red. In *Red hens* Brown Reds were the winners, and were all good, the first especially. In the Variety of cocks *Duckwings* won the first, a very good bird in all points, but the others were only moderate. *Duckwings* were also the recipients of the honours in hens. The winners good, the first most noticeable for style, and second more for colour and marking. *Hamburgs* a fair lot, Messrs. Robinson, Long, and Pickles coming in for the prizes. *Silver-pencils* good, but not particularly nice in comb. *Golden* a little faded, but comb good; *Silver-spangles* being better, and *Golden* best, and the cup awarded here. *Game Bantams*, with a few exceptions, were poor, but there were some fair *Silver Sebrights*, to one of which the cup was awarded. In *French* were two classes but only six entries, but there were some pretty good birds in each. *Polish* were pretty good, and all *Golden*. In the Local class nice *Gold Polands* were first, *Houdans* and *Brahmas* taking the other prizes. The *Selling* classes were a marked contrast to what we generally see at this time of year, some of the birds being very good, Messrs. Newbitt's *Spanish* and *Wren's* *Brahmas* particularly so. Pen 856 (Low) contained a cock with a spur growing out of the centre of the head, which, though detached from the skull, was grown to the flesh, and in our opinion had been inserted after the removal of the comb, this and the wattles being evidently cut. *Chickens* were pretty good as a class, *Dark Brahmas* and *Dorkings* dividing the prizes.

*Bouen Ducks* were good, but of *Aylesbury* there was only one pen; and in the Variety *White-faced Whistlers* were first, *Domesticated Mallard* second, and *Cross-bred* third.

Of *Pigeons* there were about 135 entries, and the show at Driffield occurring at the same time, it is surprising that the entries were so large in these and the Rabbits. With Messrs. Filton, Hammock, Yardley, Ord, and Woodhouse as exhibitors little need be said of the general quality of the birds. *Carrier* cocks were all noticed, and the cup for the first section was awarded to a grand *Black*, well developed in beak and eye wattle, very good in colour and style; second a strong young *Dun*, and third a good *Black*, but with a stiff wing. *Hens* also good. First *Black*, a *Carrier* all over, and a capital match for the first cock; second *Black*, not so heavy, and third *Dun*, wanting only in neck. All noticed. Many of the *Pouters* were a little shabby in feather, but were good classes. In cocks first a *Blue* in fine show, second a *White* quite as well up, and third a *Black* well marked, very sound in colour, but rather short. All were noticed, as also in hens, where the first was *Black*, second *Black*, and third *White*. *Tumblers* were an excellent lot of *Almonds*. First a cock very rich in ground and perfectly broken, with grand head properties, but slightly cloudy at the corner of the eyes; second grandly broken, a little darker; third beautifully broken, not so rich, and Mr. Yardley's out of feather and looking ill. In *Balds* and *Beards* first was *Black Bald*, perfect, but wanting a moult; second a *Silver*, good, but lost in head a little, and foul on one thigh; third a grand *Blue Beard*, but rather lame. *Barbs* only a moderate class; first *Red*, and second and third *Blacks*. With the exception of the first *Red* cock the *Jacobins* were poor. *Dragoons* good. First a *Blue*, second *Yellow*, and third *Black-barred Silver*. The cup for these classes was awarded to the *Almond*. *Fantails* were uncommonly fine, the three winning birds a close run, and all *White*. *Turbits* a nice lot, though some were a little dirty. First a *Blue* cock, second *Silver*, and third *Blue*. *Owls* were all foreign; the first and third *White*, and second *Blue*, the cup going to the first-named bird. In *Antwerps* first was a good

Short-faced Silver Dun, second a medium Red Chequer, and third a sound strong Dun medium. In the Variety class first was a Black Trumpeter, second Black Turbiter, and third a Grey Frillback. Carriers of this season were a strong class in Black and Dun, and were mostly noticed. The first Black hen, second Black cock, and third Dun. In the following class all were Blues, and very good. In the Selling class the first were Blue Carriers, and second and third Antwerps. Mr. Fulton won the point cup.

Of Rabbits were 111 entries, and a good display they made. Lops, Self-colour, came first, the winner a Sooty Fawn doe 23 by 4½, was a truly grand Rabbit; second, 21 by 4½, a Fawn buck; third, a Smutty Blue 21½ by 4½. The rest were poor. In any Broken-colour, first was a splendid Tortoiseshell doe 21½ by 4½; second, a Fawn and-white doe 21½ by 4½; and third, 21 by 4½. Belgian Hares a good class, the prizes going to colour and marking more than to size. The first a beauty but not in fine order. Silver-Greys were a sharp contest, and many good even Rabbits were shown. First a doe, second a doe, and third a buck but quite young. Himalayans a good entry, also the four best very close in points. First a small young Rabbit very well marked; second large and very good; and third also large. Pen 473 a grand Rabbit but moulting. In Angoras only the first was good but that very grand, the rest being young and mostly out of condition. Dutch not numerous but very good. First Grey, second Fawn, and third Black. In the Variety class Silver-Creams won the second, and so-called Siberians third. The Selling class was very good, the first a Fawn Lop, second Silver-Grey, and third Belgian-Hare.

We cannot commend the classification of the *Cage Birds*, which might be greatly amended, and yet there was a fair show. In Parrot and Paroquets first was a good Grey, and second African Love Bird. The first-prize Belgian was a gem, but the rest poor. Norwich only a moderate lot. In the Variety first and third were Mealy Yorkshires, and second a Cinnamon. The Mules were well placed, the first a Jonque, and all of the Gold-finch cross, and Variegated Linnet or Finch poor, but Larks very good.

Cats were a good show. Lion, the champion Cat, low in condition, was fairly beaten by another Tabby. Foreign Cats were a good class; the winners, White Angoras, very good.

**BALDS OR BEARDS.**—Cock or Hen.—1, R. Fulton, 2 and 3, W. Woodhouse, King's Lynn. 4, T. Holmes, Lower Sydenham; R. Fulton.  
**BARS.**—Cock or Hen.—1 and 2, R. Fulton. 3, E. G. Cave. 4, C. Norman, Westfield. 5, H. Yardley.  
**ACORN.**—Cock or Hen.—1 and 2, R. Fulton. 3, W. Parkinson, Doncaster. 4, W. Woodhouse.

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#### CAGE BIRDS.

**PARROT, PARROQUET, OR ANY OTHER FOREIGN BIRD.**—1, C. E. Grundy, Boston. 2 and 3, J. Coker, Hull. 4, E. B. Mason.  
**CANARY.**—Belgian.—1, W. T. Simonds. 2 and 3, Knight & Spencer, Arlesey. 4, B. G. Cave. 5, T. F. Shimels.  
**MARKET BIRD.**—1, F. Bamber, Alford. 2, any other variety.—1 and 2, E. Tomlin. 3, T. F. Shimels. 4, Knight & Spencer (3).  
**MULE.**—1, J. Moore. 2 and 3, E. Tomlin.  
**LINET OR FINCH.**—1 and 2, Knight & Spencer. 3, W. T. Simonds. 4, E. Tomlin. 5, R. Ross, Poole.  
**LARK.**—1, F. A. Woodthorpe, Boston. 2, E. Ross. 3, T. Hobster, Boston.  
**THRUSS OR BLACKBIRD.**—1, T. Hobster. 2, J. Aitken. 3, J. Aitken, Alford.  
**ANY OTHER ENGLISH CAGE BIRD, OR OTHERWISE.**—1 and 2, Knight and Spencer. 3, F. Bamber (English Hawk).  
Points Cup won by Knight & Spencer.

#### RABBITS.

**LOP-EARED.**—Self-coloured.—Buck or Doe.—1, T. Schofield, Manchester. 2, H. Pickworth. 3, G. Conyers, Hull. 4, W. Nottage, Northampton. 5, Broke Colour.—Buck or Doe.—1, T. Schofield. 2, E. Greaves, Grimsby. 3, H. Pickworth. 4, W. Rhodes, Spilby. 5, T. Schofield. 6, J. Barker, Louth; J. T. 7, T. Schofield. 8, J. E. Pilgrim, Hinchley. 9, Livett; 10, H. Whitan, Boston; 11, B. Greaves. 12, B. Greaves. 13, F. Purser, Bedford. 14, B. Greaves. 15, T. 16, Humber; 17, B. Greaves; 18, T. Schofield. 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

#### CATS.

**ENGLISH.**—1, T. J. Wood, Boston. 2, E. Baxter, Dalston Lane. 3, D. Mount. 4, Alford.  
**FOREIGN.**—1, T. Weightman, Hatfield. 2, E. Clark. 3, C. E. Barry, Horncastle. 4, Mrs. L. N. Bradley, Alford; 5, E. Clark.  
**JUDGES.**—Poultry: Mr. Tebbay. Pigeons and Rabbits: Mr. E. Hutton. *Cage Birds and Cats*: Mr. Billett.

#### WHITWICK SHOW OF POULTRY, &c.

This was held August 3rd. The Judge was Mr. James Dixon, North Park, Clayton, Bradford, Yorks.

**GAME.**—Black and Brown-breasted Bader.—Cock.—1, J. Richardson, Loughborough. Hen.—1, T. Tillotson, Coates, Leeds. 2, J. Richardson. 3, J. Moo. 4, Gifford, Leicester.

**GAME.**—Any other variety.—Cock.—1 and 2, Earl of Londoun. 3, S. Perry. 4, B. Ball, Burton-on-Trent. Hen.—1, E. Ball. 2, J. Richardson. 3, H. 4, W. Wood, Worcester. 5, W. Tillotson.

**DORCHES.**—Hen.—1, W. H. Crews, Etwall. 2, T. E. Pilgrim, Hinchley. 3, R. Hill, Nottingham. Hen.—1, Hon. G. Hastings, Donington Park. 2, R. Hill.

**COCHINS.**—Cock.—1, H. Tomlinson, Birmingham. 2, W. H. Crews. 3, E. L. Draper, Burton-on-Trent. Hen.—1, H. Tomlinson. 2, E. L. Draper.

**BRAMMAS.**—Cock.—1, W. Whitley, Sheffield. 2, H. Feast, Swans. 3, T. 4, H. Feast, Humberstone. 5, H. Feast. Hen.—1, W. Whitley. 2 and 3, H. Feast. 4, C. Judson. 5, C. Judson.

**HAMPSHIRE.**—Gold or Silver-splashed.—Cock.—1, H. Feast. Hen.—1, H. Feast. 2, H. Feast.

**ANY OTHER VARIETY.**—Cock.—1, H. Feast. 2, J. E. Pilgrim. Hen.—1, W. H. Crews. 2, H. Feast.

**BANTAMS.**—Cock.—1, E. Ball. 2, J. Mayo, Gloucester. 3, J. Callie, Haver. 4, T. Cropper, Beccles. Hen.—1, A. L. Nixon, Barton. 2, J. Mayo. 3, T. Cropper, Beccles.

**DUCKS.**—1, Earl of Londoun. 2, W. H. Crews.

#### PIGEONS.

**CARRIERS.**—1, H. Yardley, Birmingham. 2, W. Sheffield, Whitwick. 3, H. Yardley. 4, Mrs. H. Pickworth, Monks March, Spalding.

**WATERS.**—1, J. F. Loveridge, Newark. 2, H. Yardley. 3, G. De Lisle. 4, H. Yardley. 5, G. De Lisle.

**ANTWERPS.**—1, H. Yardley. 2, A. Farndon, Hinchley. 3, G. De Lisle; J. Trivet, Hinchley.

**ANY OTHER VARIETY.**—1, J. Gamble, Hugglescote. 2, R. Williamson, Whitwick. 3, W. Siddons, Swanton.

**RABBITS.**—1, H. Pickworth. 2, W. Hunter, Walsall. 3, A. Fletcher, Thetford; W. Kirby, Hugglescote; J. Brotherton, Loughborough.

**CANARIES.**—Yellow.—1, T. Moore, Thringstone. 2, G. Gadd, Leicester. 3, any other variety.—1, Kirk, Whitwick. 2, K. Arnold. 3, B. Gadd.

#### MANAGEMENT.

**CHEVRE-CORUM.**—1, W. H. Crabtree. 2, W. Dring, Faversham. 3, W. Dring, Faversham. 4, W. Dring, Faversham. 5, W. Dring, Faversham.

**POULTRY.**—1 and 2, G. W. Boothby, Louth. 3, H. Pickles. 4, T. Webb. 5, T. Webb.

**ANY VARIETY.**—Owner residing within twelve miles of Alford.—1, G. W. Boothby (Gold Poland). 2, J. M. Atkinson, Alford (Dark Brahmas). 3, E. Coney.

**BARTHOLOMEW OR CHROMER.**—Owner residing within fifteen miles of Alford.—1, W. Bramby, Alford. 2, E. Coney.

**SELLING CLASS.**—Price not to exceed 50s.—1, E. Newbitt (Spanish). 2, L. Wren, Lowestoft (Brahmas). 3, G. W. Waters. 4, L. Nutsay, Alford (Crève-Coeur).

**SELLING CLASS.**—Price not to exceed 50s.—1, Smith & Taylor (Buff Cochins). 2, E. J. Wells (Dark Brahmas). 3, G. W. Waters. 4, Mrs. F. Cropper, Horncastle (Light Brahmas).

**BRAMMAS (Light or Dark), COCHINS, OR DORCHES.**—Chickens.—1, W. E. Gaver, Dyke (Buff Cochins). 2, W. H. Robson, Neepham (Coloured Dorchs). 3, Hon. Mrs. A. B. Hamilton, Blidmont, Woburn (Dark Brahmas). 4, T. Webb (Light Brahmas). 5, W. Santon, Driffield (Buff Cochins). 6, R. Foster, Alford (White Cochins). 7, J. Harvey, Louth (Dark Brahmas). 8, R. Taylor, Alford (Light Brahmas). 9, J. H. Christian, Alford (Light Brahmas).

**ANY OTHER VARIETY.**—Chickens.—1, W. Dring (Hondans). 2, A. Kibben, Westham (Brown Leghorns). 3, L. Nutsay (Crève-Coeur). 4, W. Bygott, jun., Eye Hill (Sebrights).

**DUCKS.**—Bacon.—1, W. H. Robson. 2, D. J. Greenwell, Alford. 3, W. Bygott. 4, E. E. Clarke, Epsom. 5, C. Brookes, Spilby. 6, W. H. Robson, Epsom. 7, L. Gulliver, Arlesey. 8, any other variety.—1, M. Lemo. 2 and 3, C. Brookes. 4, G. Moore, Burgh.

#### PIGEONS.

**CARRIERS.**—Cock.—1, Plate, and 2, R. Fulton, Bromley, London. 3, W. G. Hamcock, Ilford. 4, H. Yardley, Market Hall, Birmingham. 5, H. Yardley and Dye, Hetham. 6, C. G. Cave, Spalding. 7, M. Lemo. Hen.—1 and 2, R. Fulton. 3 and 4, H. Yardley. 5, H. Yardley. 6, H. Yardley. 7, H. Yardley. 8, H. Yardley. 9, H. Yardley. 10, H. Yardley. 11, H. Yardley. 12, H. Yardley. 13, H. Yardley. 14, H. Yardley. 15, H. Yardley. 16, H. Yardley. 17, H. Yardley. 18, H. Yardley. 19, H. Yardley. 20, H. Yardley. 21, H. Yardley. 22, H. Yardley. 23, H. Yardley. 24, H. Yardley. 25, H. Yardley. 26, H. Yardley. 27, H. Yardley. 28, H. Yardley. 29, H. Yardley. 30, H. Yardley. 31, H. Yardley. 32, H. Yardley. 33, H. Yardley. 34, H. Yardley. 35, H. Yardley. 36, H. Yardley. 37, H. Yardley. 38, H. Yardley. 39, H. Yardley. 40, H. Yardley. 41, H. Yardley. 42, H. Yardley. 43, H. Yardley. 44, H. Yardley. 45, H. Yardley. 46, H. Yardley. 47, H. Yardley. 48, H. Yardley. 49, H. Yardley. 50, H. Yardley. 51, H. Yardley. 52, H. Yardley. 53, H. Yardley. 54, H. Yardley. 55, H. Yardley. 56, H. Yardley. 57, H. Yardley. 58, H. Yardley. 59, H. Yardley. 60, H. Yardley. 61, H. Yardley. 62, H. Yardley. 63, H. Yardley. 64, H. Yardley. 65, H. Yardley. 66, H. Yardley. 67, H. Yardley. 68, H. Yardley. 69, H. Yardley. 70, H. Yardley. 71, H. Yardley. 72, H. Yardley. 73, H. Yardley. 74, H. Yardley. 75, H. Yardley. 76, H. Yardley. 77, H. Yardley. 78, H. Yardley. 79, H. Yardley. 80, H. Yardley. 81, H. Yardley. 82, H. Yardley. 83, H. Yardley. 84, H. Yardley. 85, H. Yardley. 86, H. Yardley. 87, H. Yardley. 88, H. Yardley. 89, H. Yardley. 90, H. Yardley. 91, H. Yardley. 92, H. Yardley. 93, H. Yardley. 94, H. Yardley. 95, H. Yardley. 96, H. Yardley. 97, H. Yardley. 98, H. Yardley. 99, H. Yardley. 100, H. Yardley.

**WATERS.**—1, H. Yardley. 2, H. Yardley. 3, H. Yardley. 4, H. Yardley. 5, H. Yardley. 6, H. Yardley. 7, H. Yardley. 8, H. Yardley. 9, H. Yardley. 10, H. Yardley. 11, H. Yardley. 12, H. Yardley. 13, H. Yardley. 14, H. Yardley. 15, H. Yardley. 16, H. Yardley. 17, H. Yardley. 18, H. Yardley. 19, H. Yardley. 20, H. Yardley. 21, H. Yardley. 22, H. Yardley. 23, H. Yardley. 24, H. Yardley. 25, H. Yardley. 26, H. Yardley. 27, H. Yardley. 28, H. Yardley. 29, H. Yardley. 30, H. Yardley. 31, H. Yardley. 32, H. Yardley. 33, H. Yardley. 34, H. Yardley. 35, H. Yardley. 36, H. Yardley. 37, H. Yardley. 38, H. Yardley. 39, H. Yardley. 40, H. Yardley. 41, H. Yardley. 42, H. Yardley. 43, H. Yardley. 44, H. Yardley. 45, H. Yardley. 46, H. Yardley. 47, H. Yardley. 48, H. Yardley. 49, H. Yardley. 50, H. Yardley. 51, H. Yardley. 52, H. Yardley. 53, H. Yardley. 54, H. Yardley. 55, H. Yardley. 56, H. Yardley. 57, H. Yardley. 58, H. Yardley. 59, H. Yardley. 60, H. Yardley. 61, H. Yardley. 62, H. Yardley. 63, H. Yardley. 64, H. Yardley. 65, H. Yardley. 66, H. Yardley. 67, H. Yardley. 68, H. Yardley. 69, H. Yardley. 70, H. Yardley. 71, H. Yardley. 72, H. Yardley. 73, H. Yardley. 74, H. Yardley. 75, H. Yardley. 76, H. Yardley. 77, H. Yardley. 78, H. Yardley. 79, H. Yardley. 80, H. Yardley. 81, H. Yardley. 82, H. Yardley. 83, H. Yardley. 84, H. Yardley. 85, H. Yardley. 86, H. Yardley. 87, H. Yardley. 88, H. Yardley. 89, H. Yardley. 90, H. Yardley. 91, H. Yardley. 92, H. Yardley. 93, H. Yardley. 94, H. Yardley. 95, H. Yardley. 96, H. Yardley. 97, H. Yardley. 98, H. Yardley. 99, H. Yardley. 100, H. Yardley.

**ANTWERPS.**—Cock or Hen.—1, Plate, 2, and 3, R. Fulton. 4, W. G. Hamcock. 5, H. Yardley.



**CATS.**—*Tortois.*—1, J. H. Pallet, Loughborough. *Tabby.*—1, H. Boyer Leicester. 2, Miss F. Kama, Kettering. *Ac.* J. Parker, Newhall, Derby. *Any other colour.*—1, J. Brotherton. 2, W. Hulce, Nottingham. *Heaviest.*—1, W. Hulce.

#### LOCAL CLASSES.

**GAME.**—*Black and Brown-breasted Reds.*—Cock—1, J. Mee, Griffydham. 2, T. Clifford, Whitwick. *Ac.* G. Mee, Griffydham. *Hen.*—1, G. Mee. 2, J. Kirby, Donington. *Ac.* F. Vann, jun., Coalville. **GAME.**—*Any other variety.*—Cock—1, J. W. Weston, Coalville. 2, F. Vann, jun. *Hen.*—1, S. Mee. 2, F. Vann, jun. **SPANISH.**—Cock—1, J. Hallam, Thringstone. 2, S. Clark, Whitwick. *Hen.*—1, J. Mee. 2, T. Hawthorne, Coalville. **BRAHMAS.**—*Light.*—1, S. Wayte, Thringstone. 2, C. Thompson, Hugglescoote. 3, G. Walker, Griffydham. 4, S. Clark. *Hen.*—1, S. Wayte. 2, C. Thompson. **HAMBURGERS.**—*Gold or Silver-pencilled.*—Cock—1, — Williamson, Bardon Hill. 2, F. Oron, Thringstone. *Hen.*—1, R. Hallam. **HAMBURGERS.**—*Gold or Silver-spangled.*—Cock—1, J. Blackwell, Sheepshad. 2, W. Griffin, Hugglescoote. *Hen.*—1, J. Blackwell. 2, W. Wilkins, Thringstone. 3, A. Dear, Donington. **ANY OTHER VARIETY.**—Cock—1, J. Mee. 2, W. Cramp, Hugglescoote. *Hen.*—1, W. Cramp. 2, J. Harris, Hugglescoote. **BANTAMS.**—Cock—1, W. Cramp. *Hen.*—2, W. Cramp. **RABBIT.**—1, J. Kirby, Donington.

### MELTON MOWBRAY SHOW OF POULTRY, &c.

AUGUST 5TH.

This was a nice small Show, but the Committee were backward in their arrangements, owing, no doubt, to the system of double numbers which they had adopted. Mr. Hewitt was Judge.

**Dorkings** were few; first a very neat pen in nice trim, second a fine hen but a bad cock. **Spanish** were good in lobe and face, the first being the best hen, and the second the best cock. Only one pen of **Buff Cochins** was entered. The first, Whites, were excellent; second, moderate Partridge; third, poor White. In **Light Brahmas** first were old and second neat young birds, not heavy enough in feather; third a fine cockerel but light in hackle, with a lovely pullet. In **Darks** first were a fine old pair of great size, second a pretty cock of perfect colour but a poor hen, third fair only. **Hamburgs** were the strongest classes in quality; the first Pencils were Gold, in grand feather, the cock perfect in head and tail; second a rich cock, deficient in other points; third a good cock and poor hen. In **Spangles** first a fine pen of Golds in grand feather, the hen perfect, but the cock was too much laced on the wings; second also Gold, the hen too dark, but the cock good; third Silver, the hen very good, but the cock hollow in comb and very white on the back and saddle, being far inferior to the two highly commended pens. In **Red Game** first were Brown Reds of fair colour with a very drooping tail, second a fine pen of Black Reds. In the next class, first a very light pen of Duckwings, second beautiful Duckwing chickens, third fair Duckwings. There was only a single Game cock, but he was out of condition. In **Houdans** first a fine cock in nice trim, second a fine cock of good colour with a poor hen, third fine chickens. In **Orpingtons** the first cock was rather high in tail, and the hen only fair; second a good cock, with a far better hen; third a fair pen of old birds, the chickens being passed on account of their Houdan combs. In the Variety class Silver Polands were first, the cock very good, but the hen poor; a poor pen of Black Hamburgs second, and a much better pen third. In **Game Bantams** first were neat Black Reds; second Piles, the hen very good, but the cock big and coarse. Capital Blacks were first in the Variety class, second White-booted with very bad combs, and third very moderate Black chickens. **Turkeys** were very fair, the first a fine cock, and second a nice hen. **Geese** were a large class, the winners all good. In **Ducks** the Aylesburys were fair, the first a fine drake, as was the second. In **Rouens** the first drake and second Duck would make a grand pen.

**Pigeons** were poor throughout. The first Carriers were a fine upstanding pair, but not of high quality. In **Tumblers** first were Almonds, and second Blue Baldheads. In **Fantails** first Blues, second and third White, the latter coarse. **Pouters** were White, and all moderate. **Jacobins** were Yellows of fair colour only. **Trumpeters** were all Black, most of them failing in rose and hood. **Archangels** were all poor in colour. In the Variety class we preferred the Swallows, which were capital Reds.

In the **Lop Rabbits** first was a grand well-known Sandy, second a fair White. Heavy Rabbits were a fine class, Lops winning; and in the Variety class first went to a Silver-Grey of rich colour, and second to a nice Angora, a good Silver-Grey being very highly commended. The young class was very interesting, Belgian Hares winning, Angoras second, and capital Lops highly commended.

In the Local classes we noticed nothing worthy of mention beyond Mr. Wild's Pencilled Hamburgs; the Game winners.

**DORKINGS.**—1, W. H. Crabtree, Manchester. 2, S. W. Hallam, Whitwick. 3, J. Ward, Bardon Hill.

**SPANISH.**—1, S. W. Hallam. 2, W. Whitworth, Manchester. 3, M. Brown, Kettleby.

**COCHINS.**—*Ostronome or Buff.*—1, W. H. Crabtree. *Any other variety.*—1, W. Whitworth. 2, J. Green, Coalville. 3, C. Wilson, Langar.

**BRAHMAS.**—*Light.*—1, W. H. Crabtree. 2, H. Feast, Swanscoe. 3, J. Long, Bromley. *Dark.*—1, W. H. Crabtree. 2, J. Long. 3, J. Green.

**HAMBURGERS.**—*Gold or Silver-pencilled.*—1, J. Long. 2, J. Ward. 3, J. Robinson. *Gold or Silver-spangled.*—1, T. Blakeman, Wolverhampton. 2, S. W. Hallam. 3, J. Robinson.

**GAME.**—*Black-breasted or other Reds.*—1, E. Winwood, Worcester. J. Mee,

Ashby-de-la-Zouch. *Any other variety.*—1, E. Winwood. 2, E. Bent, Burton-on-Trent. 3, W. Tiltson, Leeds. *Any variety.*—Cock—1, E. Winwood.

**HOUDANS.**—1, W. Whitworth, jun. 2, G. W. Hibbert, Manchester. 3, W. Dring, Faversham.

**CASTS COUSAS.**—1, G. W. Hibbert. 2, W. H. Crabtree. 3, W. Dring.

**ANY OTHER VARIETY.**—1, W. Whitworth, jun. 2, J. Robinson. 3, J. Long.

**BANTAMS.**—*Game.*—1, E. Bell, Burton-on-Trent. 2, Mrs. Deacon, Oundle. 3, R. J. Heartley, Altrincham. *Any other variety.*—1, J. Mayo, Gloucester.

**TURKEYS.**—1, N. Whitechurch, Melton. 2, Mrs. Goy, Eaton, Grantham.

**GEES.**—1, Mrs. Deacon. 2, H. Wyman, Conington, Peterborough. 3, N. Whitechurch, Melton.

**DUCKS.**—*Aylesbury.*—1, E. Snell, Barrowden. 2, Mrs. Deacon. *Rouen.*—1 and 2, J. Wyles, Melton. 3, H. Gill, Holwell, Melton.

#### PIGEONS.

**CARRIERS.**—1, W. Nottage, Northampton. 2, H. Parker, Long Eaton.

**TUMBLERS.**—1 and 2, H. Yardley, Birmingham.

**FANTAILS.**—1, H. Yardley. 2, J. F. Loversidge, Newark.

**POUTERS.**—1, W. Nottage. 2, H. Yardley.

**JACOBINS.**—1, H. Yardley. 2, W. Haseldine, Melton.

**TRUMPETERS.**—1, W. Gamble, Thorpe Satchville, Melton. 2, H. Yardley.

**ARCHANGELS.**—1, H. F. Hinde, Dalby Vicarage, Melton. 2, — Andrews, Melton.

**ANY OTHER VARIETY.**—1 and 2, H. Yardley.

#### RABBITS.

**GREATEST LENGTH OF EAR.**—1, Mrs. H. Pickworth, Moulton Marsh. 2, T. S. Barrows, Leicester.

**HEAVIEST.**—1, J. Spencer, Melton. 2, — Philips.

**ANY VARIETY.**—1, F. Purser, Bedford. 2, Mrs. Snell, Barrowden.

**PAIR UNDER TWELVE WEEKS OLD.**—1, F. Sabbage, Northampton. 2, Mrs. Snell.

#### LOCAL CLASSES.

**DORKINGS.**—1, N. Whitechurch, Melton. 2, M. Kew, Market Overton.

**SPANISH.**—1 and 2, M. Brown, Kettleby.

**COCHINS.**—1, C. Wilson, Langar. 2, M. Kew.

**BRAHMAS.**—1, C. Wilson. 2, J. Hall, Statham, Melton.

**HAMBURGERS.**—*Gold or Silver-pencilled.*—1 and 2, T. Wild, jun., Melton.

*Gold or Silver-spangled.*—1, T. Wild, jun. 2, H. Kidger, Owston.

**GAME.**—1, F. Willford, Statham. 2, A. Peake, Somerby.

**ANY OTHER VARIETY.**—1, J. Morley, Sysconby. 2, M. Kew.

**BANTAMS.**—1, J. O. Faget.

**DUCKS.**—1, H. Gill, Holwell, Melton. 2, M. Kew.

**PIGEONS.**—*Any variety.*—1, W. Haseldine. 2, W. Latham, Melton.

**RABBITS.**—*Any variety.*—1, W. Haseldine. 2, J. W. Priestman, Melton.

**JUDGE.**—Mr. E. Hewitt, Sparkbrook, Birmingham.

### GREAT HORTON SHOW OF POULTRY, &c.

This annual Show was held on the 7th, the site of which we must pronounce badly chosen, two small fields and half a street being used for the purpose, and up one side of the latter the pens were placed against a garden wall. These were well arranged, and on Turner's principle, the numbers being for poultry 99, Pigeons 102, and Rabbits 20. The morning was very close but fine. The arbitrations, not commencing till noon, were not completed till nearly two o'clock, when it commenced to rain, and continued a perfect downpour the whole of the day, and no tent or other cover being provided most of the specimens had a perfect drenching, although an attempt was made by some members of the Committee to protect with planks.

**Game** had six classes with one cup, which was won by Mr. Aykroyd. In single cocks, Brown Reds, first was in good feather, a capital colour, but long-bodied and broad in sickle; second a fair bird, deep in moult. Pen 4 (Sugden) one of the best, ought to have been noticed. Black Reds were much faded, but as Game, were pretty good. In Any other variety first was a Pile and second Duckwing. Brown Red hens were very good, and here was one which we at once dubbed Sweep on account of the intense blackness of both face and legs, yet it won't do, and deserved disqualifying. The first in hens any other colour was a Duckwing, but in very bad feather; second a Pile, a moderate lot. A class for Game chickens brought out the best of the Game classes, the winners Brown Reds; the first dubbed, the second undubbed and more to our taste, there being also some good Duckwings. **Spanish** were a very good class, and it is matter of surprise these birds carry their feathers so long and well. In **Cochins** first were Buff and second White, two good pens. **Brahmas** were of the Dark variety, the first hen good in pencilling, the second cock best of the two, and rightly placed. **Hamburgs** were not numerous, but were a good section; in fact, it would be difficult to bring a better lot together. In the Variety the winners were Polish, the first Silver and second Gold. Partridge Cochins came to the front in chickens, and though good we do not think them equal to what we have seen from the same yard in previous years; second Light Brahmas, large and good; and third White Cochins. **Bantams** were in very good condition, and some good birds were shown. In **Ducks** Rouens won, both pens being very large.

**Pigeons** came next. Of Pouters only two entries, both Blue. Carriers were more numerous, but mostly very young birds, though quite promising, the only bird of any weight being Mr. Yardley's Black cock. In Dragons first was a Yellow, very good, but greatly faded of late; second a fair good Blue, and the rest a moderate lot. English Owls a pretty good lot. First and extra a Silver cock, and second a Blue; several others well mentioned. Turbits were badly placed. First a Red hen, very plain in face, with neither gullet nor hog mane; and second a very coarse Yellow, by far the best being No. 6 (Rhodes), a Silver cock, and second Yardley, a Silver cock. Tumblers were good, the first Red and second Black Mottles were rightly placed; some capital Black Balds were highly commended. Of Barbs

only two good Black cocks. Jacobins bad. Antwerps (Long-faced) were very good; Red Chequers won, but the second had a white beak, and might have been replaced with a better in Pen 5 (Ellie). Antwerps (Short-faced) were well placed, and the winners Silver Duns. In Medium-faced first was Blue and second Silver Dun, both good birds. In the Variety first was a Blondinette, and second Red Swallow; no name in the catalogue. In the Selling class Blue Owls were first, and a Black Barb second.

Lop-eared Rabbits were a moderate lot; both winners were Tortoiseshell does; the length we could not ascertain, as they were measured with a stick only. Himalayan were rightly placed, but the ears of the first-prize one were far too large. In the Variety class was a horrid mistake, the first going to a Rabbit for which no name but incorrect will fit, being evidently a cross between a Dutch Angora and Lop, the second going to the worst of three Silver-Greys. Pens 3 and 4, two Silver-Greys, should have been placed first and second at a look. Pen 6, highly commended, was Angora.

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Dorkings headed the list; these being a fair lot. Chickens of this variety were good; the second the largest, but the cockerel had one spur outside his leg. Brahmas, Light, old and young both good as regards the winners, although the second-prize cockerel was a little yellow on the wing-bow. Dark Brahmas were not as good as the Light. In Game were many good birds, the winners being only superior in feather; the first and third were Brown, and second Black-breasted Reds; a capital pen of Duckwings being very highly commended. In Game chickens the winners were all Black-breasted Reds of very promising quality. Spanish were a grand lot, and the competition close; the second losing in comb only. The chickens of that variety were very good. In Cocks the winners were Buffs and good. Only one pen of chickens were shown, and these of that colour also. Hamburgs were mixed classes, Spangles and Pencils competing together, and they were very good in both classes. In Golden, Spangles won first and second, and Pencils third. The third prizes in most cases being awarded as extras; some prizes were withheld in the classes where the quality was poor. In Silvers, Spangles were first, and Pencils second and third; these were very good. Poland poor; first Black, and second Silver. Black Hamburgs good; but Mr. Pickles' pen empty. Game Bantams poor except the first Black-breasted Red; but in the next class the Blacks were good.

Ducks, Aylesbury were of very good quality; Rouens moderate; but the Variety poor after Mr. Silvester's were excluded. Geese and Turkeys were very poor, which is very uncommon in this quarter; but there were some fair birds in the Selling classes, especially the first-prize Rouen drake.

DOCKINGS.—1 and 2, E. Leyshon, Bridgend. 3, H. Feast, Pantyffynon. 4, J. Saunders, Corntown, Bridgend. 5, A. Aldrich, Talgarth. 6, H. Leyshon. 7, E. Packer, Porth.  
BRAHMA FOWLS.—Light.—1, T. A. Dean, Marden, Hereford. 2, H. Feast, s. H. Dean, Cardiff. 3, H. Feast. 4, T. A. Dean. 5, Mrs. Rolfe, Monmouth. 6, E. Davies, Cowbridge.  
BRAHMA FOWLS.—Dark.—1, M. H. Dean, Cardiff. 2, H. Feast. 3, J. H. Price, Bridgend. 4, H. Feast.  
GAME.—1, R. Pearson, Swansea. 2, H. M. A. Eddick, s. T. Trueman, Gwynedd. 3, H. Feast. 4, J. John, Ystrad. 5, W. L. Blake, Llanelli. 6, J. G. Thomas & J. W. Morris, Cardiff. 7, E. Winwood, Worcester. 8, G. Mathewson, Aberystwyth. 9, E. S. Godsell, Stroud. 10, J. P. James, Llwyn Mawr. 11, O. John, Haid. 12, G. Mathewson. 13, W. L. Blake. 14, E. S. Godsell, Stroud. 15, E. S. Godsell, Stroud. 16, E. S. Godsell, Stroud. 17, E. S. Godsell, Stroud. 18, E. S. Godsell, Stroud. 19, E. S. Godsell, Stroud. 20, E. S. Godsell, Stroud. 21, E. S. Godsell, Stroud. 22, E. S. Godsell, Stroud. 23, E. S. Godsell, Stroud. 24, E. S. Godsell, Stroud. 25, E. S. Godsell, Stroud. 26, E. S. Godsell, Stroud. 27, E. S. Godsell, Stroud. 28, E. S. Godsell, Stroud. 29, E. S. Godsell, Stroud. 30, E. S. Godsell, Stroud. 31, E. S. Godsell, Stroud. 32, E. S. Godsell, Stroud. 33, E. S. Godsell, Stroud. 34, E. S. Godsell, Stroud. 35, E. S. Godsell, Stroud. 36, E. S. Godsell, Stroud. 37, E. S. Godsell, Stroud. 38, E. S. 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## WEEKLY CALENDAR.

Day of Month.	Day of Week.	AUGUST 19—25, 1875.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
			Day.	Night.	Mean.							
19	Th	Reading, Glastonbury, and Pontypool Shows.	73.1	49.2	61.2	58 at 4	16 at 7	18 at 8	30 at 7	15	8 26	231
20	F	Ulverston Show.	73.8	50.6	61.7	55 4	12 7	30 8	33 8	16	8 12	232
21	S	Shildon Show.	73.6	49.7	61.2	57 4	9 7	43 8	16 10	17	2 58	233
22	Sun	18 SUNDAY AFTER TRINITY.	71.6	49.7	60.6	58 4	7 7	59 8	48 11	18	2 48	234
23	M	[ the Alexandra Palace.	71.6	49.0	60.4	0 5	5 7	22 9	after.	19	2 37	235
24	Tu	Autumn Show of the Metropolitan Floral Society at Cardiff and Barton-on-Trent Shows.	71.6	47.9	59.7	1 5	8 7	55 9	41 2	20	2 12	236
25	W		74.1	49.7	61.9	8 5	1 7	44 10	0 4	21	1 55	237

From observations taken near London during forty-three years, the average day temperature of the week is 72.5°; and its night temperature 49.4°.

## GEMS OF THE HERBACEOUS BORDER.



AM not among those who would have one style only of ornamental gardening. There are spots where masses of colour are almost indispensable, and when the colours are well arranged everyone who is not hopelessly prejudiced cannot help admiring the picture before him. But "bedding plants" do not require constant attention like border flowers, and consequently have not the power of drawing out our affection towards them.

We do not recognise them individually; we count them by the dozen or hundred; they merely represent so many pounds and shillings, for we know if we lose them we can buy plenty more exactly like them. Plants which are reared by ourselves and fondly tended for years, on the other hand, are like our own children, which, of course, we are quite certain are better than those of any other person; and if any are sickly or delicate, and require extra attention, it only makes them more loveable. On this account, as well as on the score of good taste, I am sorry to see in many old-fashioned cottage gardens such plants as Geraniums and Calceolarias usurping the place of the good old border flowers which were common a few years ago. Brompton Stocks, the sweet old Cloves, White and Tiger Lilies, Tulips, Anemones, Sweet Williams, and Gilliflowers are now the exception where they used to be the rule. I do not miss them so much from our great gardens, but from our rustic village cottages they are a sad loss. Fashions, however bad, will run through all the different grades of society, and while lords and dukes continue only to cherish gaudy colours, their humbler cottagers will surely imitate them, even though the imitation is little better than a caricature. This year so far has been a sorry one for the tender bedding plants, and I am in hopes that some good will spring from it; certainly, what I have seen presents anything but a respectable appearance, chiefly owing, I believe, to the want of solar heat. On the other hand, the herbaceous borders never looked better, and as the late-flowering plants are making excellent growth, we may fairly expect them to be interesting for another three months.

Our family not being here till August, we exclude from our borders all such plants as flower before that time, and judging from our own practice, I think if I were to grow a general collection of herbaceous plants for flowering at all seasons I should take into consideration their time of flowering, and arrange them accordingly. There might be spring, summer, and autumn-flowering sets, either separately planted where they need not be visited out of season, which would be the least troublesome and most satisfactory plan, or so arranged altogether that there would never be any great blanks.

Herbaceous plants require a great deal of attention, and let no one take to them with the idea that because they are hardy they require less attention than bedding plants; they will find that they need at least four times as much, and the labour employed on them must be of

a higher kind—skilled labour compared with that employed for picking over or planting a bed of Geraniums. Anything which can be done by line and rule is easily taught to the dullest of pupils, but work requiring taste and thoughtfulness is extremely difficult to teach to labourers and the rising generation of young gardeners.

A badly-managed herbaceous border, where the plants are either falling about or bundled together like faggots, and where a struggle for existence is going on between weedy giants and diminutive gems, is a detestable sight; but a border where the plants are well arranged for height and habit—colour is almost secondary—and receive careful daily attention without showing too much the marks of the workman, I have lately found by my own incomplete arrangements receive a greater share of attention from people of cultivation than do all the rest of the garden. And no wonder. Look at it in the way of furnishing cut flowers for the drawing-room. I would at the present time challenge three or four ordinary stoves to produce such a display as I could gather from my herbaceous borders, and you may cut and come again without anything being missed. "Rubbish!" did you say? Your *Allamanda* will not compare with my *Coreopsis lanceolata* or *Oenothera Fraseri*. My *Anemone Honorine Jobert* is no mean rival to your *Eucharis*, lovely as it is, and will flower continually for six months without being died *à la* Banting. You have no match at all for my *Agapanthus umbellatus*, which if not strictly hardy or herbaceous, only requires lifting in December and placing in a shed till spring. My *Monarda*, if not so perfect in a florist's narrow view, I greatly prefer to your bug-infested *Ixora*, and by candle-light it looks decidedly better than the *Ixora*.

Other good flowers for cutting are *Tritonia aurea* (perfectly hardy), *Schizostylis coccinea* (ditto), *Potentilla Hopwoodiana*, *Achillea ptarmica plena*, *Pentstemons* in variety, and to these may be added *Fuchsias* and Sweet Peas, for I do not exclude plants which are not hardy and herbaceous if they happen to harmonise with the general occupants of the border, and possess colours and other qualities of which there may be a deficiency.

Plants are sometimes required to temporarily fill blanks which may occur, to give scent and sometimes to give colour where there is too much sameness. For these purposes I do not hesitate to use some of the better annuals, such as Ten-week and Intermediate Stocks, *Asters*, *Zinnias*, *Linum grandiflorum coccineum*, *Convulvulus minor* and Sweet Peas, and also *Heliotrope*, *Salvia patens*, *Dahlias* and *Gladiolus*. *Chrysanthemums*, especially *Pompons* and other early varieties, are used largely, and are propagated annually from cuttings. The old roots all perished last winter.

Among the permanent occupants are the following:—*Aster tenuifolius*, *Fortunaea longifolius variegatus*, and *patens*; *Oenothera riparia*, *macrocarpa*, and *Fraseri*; *Gentiana gelida*, *acaulis*, and *asclepiades*; *Anemones japonica*, *vitifolia*, and *Honorine Jobert*; *Mimulus* in variety; *Polygonum Braunii* and *vacciniifolium*; *Solidago multiflora*, also a dwarf variety of the same from 12 to 18 inches

high; *Lilium lancifolium album, auratum, tigrinum*, and a variety of *Lilium candidum*, with a broad yellow band on the foliage. This is splendid in winter; certainly no summer plant with variegated or golden foliage can compare with it, and it is perfectly hardy. *Funkia*, *Tigridia*, *Zauschneria californica*, *Alströméria*, *Bœconia*, *Clematis tubulosa*, *Achillea*, *Geum*, *Helianthus*, *Eryngium*, *Helleborus*, Winter *Aconite*, *Cotyledons* and Autumn *Crocus*, *Sterbergia*, *Tritoma*, *Bedum*, *Oxycelen*, *Erica*, *Pardanthus*, *Anomatheca*, *Geranium*, *Tricyrtis*, *Gypsophila*, *Gaillardia*, *Plumbago*, *Galatella*, &c.

For the possession of many of the above gems and for a great deal of information concerning them, I am indebted to our old friend George Wheeler of Warminster, now, alas! in his eighty-fourth year, but still as young as many a man at fifty. He has been nursing them for years in the hope that they would again become popular, and I need not tell how it gladdens the old man's heart to know that there is a probability of them again gaining favour with the public. May he live to see the day.—WILLIAM TAYLOR.

### MULCHING—ESTIMATE OF STRAWBERRIES.

I AM glad to hear Mr. Luckhurst has been making some practical experiments on top-dressing with manure or mulching, instead of forking, or rather digging-in manure. I must thank him for the compliment he paid me at the commencement of his remarks, which I fear I do not deserve. My experience still is strongly in favour of mulching, especially in the case of Strawberries, where I think nothing but a hoe should be used, and that lightly, but all runners and weeds should be kept clear of the beds; and I still think the winter mulching of manure had better not be put on the beds till the autumn growth is nearly ripened.

I see another of your correspondents as well as myself recommends chopped straw as a covering for the beds during the fruiting season. I tried barley chaff mixed with it, but it is apt to induce weeds, and I still think it is best to use chopped straw only. Let it be the best and cleanest straw, chopped short, but not too short, and it should be freely used, so as to cover the whole of the soil; and another word of advice, Let it be put on early before the Strawberries begin to swell and while the flower-stems are still able to stand upright. Give the beds a good soaking of liquid manure, then cover with the clean chopped straw about an inch thick; it need not be more, as if there is a greater covering it is apt to decay underneath. One great advantage of the chopped straw is not merely that it prevents dirt from being washed over the Strawberries in wet weather, but when beds are mulched in the winter with manure it is not all removed off the beds in spring, and decayed pieces of straw are left about the plants, which help very much in wet weather to induce decay in the Strawberries.

We had a very wet time during the best of our Strawberry season this year, and it was curious to notice how one injured berry would in some sorts spread the decay to those which were near. I can strongly recommend Lucas and Sir Joseph Paxton as first-class sorts for resisting wet. The sorts varied much; some that have woolly footstalks to the berries with a superabundance of calyx rotted at the crowns, others on the under side the berry. Persons can hardly be too careful in showery weather not to move the bunches of fruit about in gathering. The other sorts that stood well were President and Vicomtesse Héricart de Thury. I still think the latter, though hardy and a good bearer, a much over-rated fruit. Eleanor stands weather pretty well, but loses much in flavour. I do not care much for either Aromatic, Royalty, Sabreur, or James Veitch. A sort I had given me by a friend, called Comte de Zahn, was a very prolific bearer, and I have no doubt in a strong soil would be valuable, but it evidently has very hairy leaves with a great many stomata or breathing spores, and I find the leaves flag in the sun. Does anyone know anything of it? Ne Plus Ultra, given me by Mr. Clarke of Studley Royal, proved also a good Strawberry this year, though not so highly flavoured as some. British Queen won't do with me, Dr. Hogg being much better. No Strawberry better repays care in a good strong soil than this. Can anyone who has tried Sir John Falstaff, Souvenir de Kieff, Princess of Wales, and La Grosse Sucre tell me what they think of them, and whether they would be likely to do in a light loamy soil not naturally a Strawberry soil? La Constante, so highly spoken of by some, is of little or no use here. For those who like Hautboy flavour Princess Dagmar is worth trying.

Referring again to mulching, I am quite confident that it

answers better to mulch Roses than to dig-in manure, and I think the same would apply to nearly all fruit trees, and have no doubt Mr. Luckhurst is right when he says the object is to get strong surface roots. Has Mr. Luckhurst remarked with me that Apples and Pears from trees where the ground is hoed or cultivated are better than those grown on trees where the grass is allowed, as in orchards, to grow up to the stems? and, moreover, that in equal periods of time, say ten years from planting, young trees on cultivated land will make double the progress as on grass? I can show some very marked instances of this. I should be glad if any of your readers would furnish notes of their experience with regard to new sorts, especially the seedlings raised by Dr. Roden and Dr. Nicolson.—O. P. P.

### SPECIAL GENERAL MEETING OF THE ROYAL HORTICULTURAL SOCIETY.

AUGUST 18TH.

LAST Friday afternoon a Special General Meeting of the Fellows of the Royal Horticultural Society was held in the Council-room, South Kensington. The object of the Meeting as advertised was "To receive from the Council a statement of the result of their negotiations with Her Majesty's Commissioners, and to consider and, if they shall approve, sanction the agreements provisionally entered into between the corporations." The chair was occupied by the Hon. and Rev. J. T. Boscawen, and at the Council Board with him were Vice-Admiral Hornby, Mr. William Haughton, Dr. Denny, Dr. Hogg (Secretary), Mr. W. B. Kelloock, Mr. A. Greta, Mr. Henry Webb (Treasurer). Amongst the general body of Fellows of the Society were Mr. S. H. Godson, Mr. Bateman, Mr. Guedalla, Mr. David Wooster, Mr. G. F. Wilson, Dr. Masters, Mr. H. Liggins, Mr. Shirley Hibberd, Mr. B. S. Williams, Mr. Maurice Young, Mr. Pinches, Mr. Bohn, Mr. Moore, Mr. Seal, Mr. Porter, &c. The attendance of the Fellows was by no means commensurate with the important character of the Meeting, which was, so to speak, to decide upon the very existence of the Royal Horticultural Society; but, as was explained in the course of the proceedings, the season of the year operated against the possibility of a full Meeting.

The CHAIRMAN said: Ladies and Gentlemen, I do not think it will be necessary to detain you long. All we have to do is to ask you to accept the Report which I will read to you, and afterwards I hope you will sanction the agreements we have provisionally entered into with Her Majesty's Commissioners. First of all I must read you a letter from our President, Lord Aberdare. The Chairman read the letter in which the noble Lord said he should not grudge the trouble of coming to London to attend the Meeting were it not that Lord Coleridge and other friends were to be with him on the 12th inst.; and he added, "The arrangements you have succeeded in making with Her Majesty's Commissioners are so advantageous that I cannot doubt they will recommend themselves to the members for adoption without any adverse discussion. I hope therefore you will be able to dispense with my attendance, the inconvenience of which at this moment would be very great." I will now read you the Report of the Council.

The following is the Report, which was taken as read:—

"The Council have the honour to report that they have succeeded in obtaining from Her Majesty's Commissioners terms which, if sanctioned by the General Meeting, will in their opinion free the Society from its present difficulties, and put it in a fair way to attain the high position which it ought to occupy as the foremost institution in this kingdom for the advancement of the science and art of horticulture. It is unhappily notorious that for some time past the action of the Society for good has been paralyzed by internal dissensions, and that in consequence of such dissensions its income has greatly fallen off. The Council are anxious to do full justice to all classes of the Fellows, the interests of which they think do not in reality conflict; and, whilst feeling strongly that the encouragement of horticulture ought to be their chief object, they believe that this will not be interfered with by making the South Kensington Gardens as attractive as possible to the inhabitants of London in general, and to the residents in their immediate neighbourhood in particular. By such a policy they hope, and as they think reasonably, to obtain for the Society an income sufficient to meet the requirements of Her Majesty's Commissioners and to place it on a satisfactory footing.

The present agreements between Her Majesty's Commissioners and the Society are so complicated that any attempt to deal with them otherwise than by way of modification was impossible in the time which the Council, without risking the very existence of the Society, could devote to the negotiation, and a question of some importance, involving the construction of these agreements, is still pending, but in, as the Council believe, in a fair way towards being settled amicably. The nature of this question is such that it is not possible to explain it within the limits of an ordinary report, but the Council refer to it here, inasmuch as it has necessitated the wording of the third clause of the proposed first agreement, which to those Fellows who are not intimately acquainted with the relations between the corporations may appear obscure. Two new agreements are proposed to be made between Her Majesty's Commissioners and the Society. The heads of the first are complete, and only await the sanction of the Fellows; those of the other the Council hope to be able to lay before them at the General Meeting.

By the first Her Majesty's Commissioners absolutely remit the payment of the £2400 rent now nearly due, and authorize the Society to borrow £7000 to pay its debts and repair its buildings; and if at the end of three years they shall exercise the power given to them by clause 2, they must take upon



themselves this £7000 of new debt, or so much of it as shall not have been repaid, out of what would have been their own rent.

"The Society's lease cannot in any case be forfeited before the end of the year 1876. It cannot be then forfeited unless the income of the Society for that year falls short of the amount required by clause 2. Even if such income should for that year fall short of that amount, there can be no forfeiture if the Society shall pay its rent in accordance with the present agreements; or if the Society shall next year, out of monies which it could tender as rent, reduce the new debt by £2400.

"By the second new agreement the Council hope to obtain part of the French annexe, the garden attached thereto, and a new entrance close to the Royal Albert Hall, in consideration of certain concessions in respect of the strip of land lying to the north-west of and outside the gardens, which they believe can be made without injury to the Society's property.

"The Council trust that these results will be deemed satisfactory, and they feel that it is the merest justice to state that but for the friendly feeling towards the Society of Her Majesty's Commissioners and the untiring personal exertions of General Scott to help them, they would have been unable to complete these arrangements in the very limited time at their disposal."

August 10th, 1876.

The Assistant Secretary then read the "Heads of Proposed new Agreement," which we published in our last number, and then the following:—

"PROPOSED SUPPLEMENTAL MODIFICATIONS OF THE AGREEMENTS BETWEEN THE COMMISSIONERS FOR THE EXHIBITION OF 1861 AND THE ROYAL HORTICULTURAL SOCIETY.

"1. The Commissioners will permit the Society during its present term to occupy and use that portion of the 'French Annexe' which on the plan (A) hereto is coloured red.

"2. The Society will permit the Commissioners during such term to occupy and use that portion of the same 'Annexe' which on the said plan (A) is coloured blue.

"3. The Commissioners may, when they please, put up a division or barriers between the said portions coloured red and blue.

"4. The Commissioners will permit the Society to occupy and use the garden, coloured green on the said plan (A), attached to the said 'Annexe,' the Society keeping the same in proper order, and the Commissioners to give six months' notice from any day of their intention to resume possession of it without compensation.

"5. The Society will permit the Commissioners to make, maintain, and control, subject to a right of way on the part of the Society, the road shown on plan (B) hereto and thereon coloured blue, and will also permit the Commissioners to remove the office marked (C) on the same plan of the Society's Superintendent of Shows, and to occupy and use to the absolute exclusion of the Society the land shown on the said plan and thereon crossed with black lines. The said road shall be so constructed as to ensure to the Society a sufficient and convenient access to the land lying between the north of the Gardens and the said road, and so as not to interfere seriously with the enjoyment of the house now occupied by Mr. Dick; or, if it is making such a road it should be found necessary or desirable so to interfere with the enjoyment of the said house, the Commissioners shall build another house equally convenient and suitable for the purposes for which the said house is now used, or shall make other sufficient compensation for the injury done thereto.

"6. The Commissioners will build and provide a convenient office and carpenter's shop in the positions marked on the said plan (B) with the words 'office' and 'carpenters' shop.'

"7. Subject to joint use with visitors to other parts of the Commissioners' estate, the Commissioners will permit the Society to use the orchard-house entrance at the north-east and north-west of the Gardens subject to six months' notice.

"8. Should the Commissioners desire to resume possession of the upper north-east and north-west Quadrant Arcades, they shall give six months' notice to the Society, and make reasonable compensation for any actual loss which may be sustained by the Society in the removal, or by the destruction of plants and fixtures.

"9. The Commissioners will give the Society an entrance on the north side of the Gardens close to the Royal Albert Hall, subject to the rights of the Hall.

"10. The Society will not raise any question as to the right of the Commissioners or their lessees to occupy and use any buildings or structures now occupied or used by them or their lessees, which are partly or wholly built or erected on or over the Society's land."

Mr. GURDALLA asked, What was the amount of the debenture debt?

Mr. HAUGHTON.—£50,000.

Mr. SHIRLEY HIBBERD.—The income is to be raised to £10,000—have you any plans to show in what way you propose so to raise the income? Let us see the plans, because it is impossible to understand the statements unless we see them [hear, hear].

The CHAIRMAN.—Mr. Haughton will show the plan. We have had no time at present to prepare elaborate plans or an elaborate scheme for the increase of our income. We have had but a very few weeks to come to terms with our landlords, and that, I think, is sufficient work to satisfy you at present [hear, hear]. Before Christmas we will be in a position to lay before you an elaborate scheme for the increase of our income.

Mr. HAUGHTON.—With respect to the plans, I may state the agreements were only settled the day before yesterday, so that it is impossible at this moment to have a number of plans ready. To have the agreements settled was the point upon which we really concentrated our energies. As to the question of time, I may say the first meeting of the sub-committee to confer with the Commissioners was held on the 18th of last month—this day month—and as we had to give a week's notice of meeting, I certainly think the Fellows have not much to complain of [applause].

Mr. SHIRLEY HIBBERD.—There is no objection whatever as to the hurried way in which the Meeting has been called, but I do not think we are to swallow down these agreements without

knowing what they really mean, and how you propose to carry them out [hear, hear].

Mr. HAUGHTON.—We will give every information that is required.

Mr. LIGGINS.—We have not had half an hour to look at some of these documents, and it is impossible in that time to give to them a calm and fair consideration. We have not had the plans at all to consider. We really have not, I may say, a quarter of an hour to look into these documents, and that is, I think, a reason why this Meeting should be adjourned [hear, and no]. I really put it to the Meeting whether the members of a Society which has on its roll thousands of members ought to be bound by the decision of a Meeting like this where hardly fifty Fellows are present? [hear, hear].

The CHAIRMAN.—I must say you are not in order. Mr. Hibberd has possession of the chair.

Mr. LIGGINS.—I beg to say that Mr. Hibberd has waived his right in favour of me. We all must know that this is really not a Meeting of the Society, which numbers thousands of persons who never heard—at least many never heard—of the propositions before us; and is a Meeting, moreover, in which a great number of us who compose it never knew anything of these propositions until we entered this room [hear, hear]. This Meeting does not consist of fifty persons, and I hope the representatives of the press will notice that fact. Is it reasonable that we should be called upon to confirm statements or agreements—call them what you like—which, to our surprise to-day, our so-called President has not had the opportunity of investigating? [cheers.] If these agreements were decided upon only the day before yesterday Lord Abderare must be as ignorant of their effect as we ourselves are. I think, under all the circumstances, we ought to adjourn the Meeting for six weeks [hear, hear, and no].

The CHAIRMAN.—I think if we adjourn the Meeting we shall not have as many Fellows present as we have now. Now, one word as regards time, which I look upon as an all-essential element in this matter. We all feel that unless we get into a position to pay our way we must fall to pieces [cheers]. But we wish to pay our debts, and to do that we must get money. It is really of vital importance that we should come to terms with our landlords in order to get that which we require [hear, hear]. As to the short notice, you have got the very same notice as you had with respect to the first agreement, and we thought we should save you trouble by taking the matter when it was thoroughly sifted, so that you might be more satisfied. We have laid that first agreement before you to-day to save another meeting.

Mr. SHIRLEY HIBBERD.—I rise, sir, to propose a resolution. I always try to do things in the ordinary manner [laughter]. My reason for submitting a resolution is that the case submitted to us now is of so indefinite a character so far as it appears advantageous to the Society, and so exceedingly definite where it appears disadvantageous to the Society, that we must really have time to consider it [hear, and cheers]. You may say we are in debt and difficulty; well, that is too well known—it is too notorious; but there is an old saying which it would be well to bear in mind, "Don't jump out of the frying-pan into the fire" [hear, and laughter]. Indeed, it seems to me if we accept these agreements without giving to them mature consideration we shall complete the ruin of the Society, which anyone of us can see is imminent. Let us not pull down this institution about our ears because it appears somewhat weak. I should think, as regards the immediate wants of the Council, that if an appeal were made to the Fellows in a thoroughly candid manner it would end in the realisation of some £4000 or £5000. I am prepared myself with a small subscription, and a gentleman who sits here on a former occasion made a most liberal offer, and is, I believe, prepared to carry it out. But I am not prepared, and I believe he is not prepared, to throw money into some promiscuous box hung up after some appeal is made to the Fellows [hear, hear]. You say this proposal laid before us is to redeem us from the difficulties under which we suffer. Well, I ask the Meeting to look into these proposals and see what they come to. Do the Commissioners take our debenture debt? No. Do they offer us any money payment? No. Forsooth, they give us permission to borrow £7000.

Mr. GURDALLA.—If you can.

Mr. SHIRLEY HIBBERD.—Oh, yes, and in three years—in fact, I was going to say that the agreement only delays for three years, the swallowing-up of the Society [hear, and cheers]. I am sure no one would like to see this Society in a state of insolvency; but, for my part, I should sooner see the Society in a state of bankruptcy than see it dragged through the mire week after week, as it is now being done, by asking us to sanction agreements we have not had time to consider. Here, indeed, is a case in which we are asked to partake of a cup of cold water not knowing whether there is poison in it or not. Look to the conditions of the agreements. The income of the Society is to be increased. That is the first proposal, but there is a condition hanging to it; it is not on the cards, but it is on the parch-

ment. Our representatives do not tell us how the income of the Society is to be increased. They do not tell us whether the country Fellows will or will not have ten times as much to pay as they have now to pay. I do not charge the Council with anything of that sort, but I put the matter in this way to show you that we ought to know what is intended to be done in the way of raising the income of the Society. Let us have a schedule which will give us that information. I have no doubt the Council and the Commissioners in what they are doing are acting for what they consider the best, but at the same time it is well that we, the Fellows, should see and know what is going to be done [hear, hear]. And for this reason, whatever we do now will bind the whole Society [hear, hear]. Now, I ask you to look at that clause in the agreements which says the Society shall not accept any more life compositions. Well, now, as far as that goes our charter might as well be torn up. No more life Fellows indeed, without the consent of the Commissioners! That is subjugation with a vengeance. Look again at clause 8, which reads thus: "Whilst the said clauses 6 and 7 remain in force the Society shall, on the authorised bank holidays, or on such other days not exceeding five in number in any one year as may be agreed upon by the Society and the Commissioners, admit the public to the South Kensington Gardens free, or at such charge as may be fixed by the Commissioners." Here, then, you are tied by the feet, and I can tell you, you will be tied by the neck presently [hear, hear]. The idea of asking us to give up our rights in this way is to me simply and perfectly ridiculous. It is not to be supposed that a body of men with ordinary intelligence will go blundering into business in this kind of way [hear, hear]. But, after all, how is it possible we can decide upon these propositions when we have not had them in our hands half an hour? Now just look at clause 5 of the "Proposed Supplemental Modification." It says, "The Society will permit the Commissioners to make, maintain, and control, subject to a right of way on the part of the Society, the road shown on plan (s), &c., and will also permit the Commissioners to remove the office marked (c) on the same plan of the Society's Superintendent of Shows, and to occupy and use to the absolute exclusion of the Society the land shown on the said plan, &c." Now, I object to that clause, as it shuts-up every mode of access for plants to our exhibitions [hear, hear].

Mr. HAUGHTON.—The clause is subject to a right of way.

Mr. SHIRLEY HIBBERD.—Well, perhaps so; but if you carry a road next to Mr. Dick's house it will be impossible for you to get plants into your exhibitions. Well, then, look at clause 10, which reads thus—"The Society will not raise any question as to the right of the Commissioners or their lessees to occupy and use any buildings or structures now occupied or used by them or their lessees which are partly or wholly built or erected on or over the Society's land." Well, do you understand what that comes to? I believe it is as great a mystery as ever came before any Society that we should give up all our rights, and that Her Majesty's Commissioners should go exactly where they please. Let them at once ask us to give up our garments and go through the world naked [cheers and laughter]. They will ask for our plants next; they will ask probably for everything exhibited on our premises; and I am really and sincerely surprised that a body of men, respectable and responsible no doubt, and powerful as they themselves feel, as the Commissioners are, should make such monstrous proposals to the Royal Horticultural Society, and expect that Society would accept or receive them [cheers]. It is with the utmost astonishment I see these proposals made. After all, I suppose two or three months must be expended in considering this matter [no, no]. I mean considering it properly [hear, hear]. Between poverty and disgrace there is a wide gulf. Well, let us bear poverty, for then we can still maintain our position—a position which is not as bad as it is represented, for after all a debt of a few thousand pounds is of very little consequence; but let us not, at all events, put up with disgrace [cheers]. One very great difficulty in our way undoubtedly is that Her Majesty's Commissioners are so exalted by the consciousness of their own strength and of our weakness, they imagine they can impose any terms, however humiliating, upon us [cheers]. I conclude by moving, "That this Meeting be adjourned for two months from the present time."

Mr. LIGGINS.—I beg to second the motion just made by my friend Mr. Shirley Hibberd; and in doing so I must say I am astonished that a Council not elected by ourselves, but rather nearly all of them appointed by each other, should come to us with such ridiculous propositions as those submitted to-day without having the courtesy of letting us know in proper time what they were [hear, hear]. They may be very good, but we have really no opportunity of knowing whether they are or not. I should be very sorry to give any vote to-day, because my Lord Aberdare says he hopes there will not be any opposition. That nobleman does not know the case himself. If he is the President of our Society, who appointed him? All I know of him is that he is a very able ex-minister of the Crown, and that he has, as we now discover, been pitchforked into this office of President

of the Royal Horticultural Society; that he has been appointed by a Council, by gentlemen who have done nothing but put forth this ridiculous scheme [cheers and laughter]. We would be stultifying ourselves and thousands of Fellows of the Society if we agreed to the proposals laid before us until we had proper time to consider and decide upon them [hear, hear]. Let this Meeting be adjourned until a larger number of Fellows come into it, and then it may be that "in a multitude of counsellors there is wisdom." Is there any imperative necessity for this good work being done so rapidly? Matters of this sort are generally arranged after mature consideration. We really have not the honour of knowing Lord Aberdare. He is a perfect stranger to us [hear, hear], and yet we are told from the chair that he is our President [a laugh], and that he writes a letter stating Lord Coleridge and his country friends are about to visit him and he can't come to you [laughter]; and that applies to the five hundred Fellows who usually fill this room, not to the miserable number now present. Well, what is good for them is good for the President: they are not here, he is not here, and so we must adjourn [hear, and a laugh]. If I understand the matter rightly we are very much indebted for these arrangements between the Royal Horticultural Society and the Royal Commissioners to His Royal Highness the Prince of Wales, because I see in the *Times*—no mean authority—that the Prince of Wales presided at Marlborough House over a joint meeting of the Commissioners and of the Council of the Society.

The CHAIRMAN.—The Meeting was one of the Commissioners solely.

Mr. LIGGINS.—Well, however it may have been, I find that Major-General Scott has got the whole credit for whatever has been done [loud cries of "oh"], but it should be remembered that the very same Major-General Scott and Sir Henry Cole were always opposed to the interests of the Society, and turned out a good Council.

The CHAIRMAN.—The question, sir.

Mr. LIGGINS.—It is the question. It is the merest justice to state that friendly feelings to this Society were expressed by General Scott; but at the same time I am sure we are all glad that we have nothing to do with him or with Sir Henry Cole. It was the policy of these gentlemen which brought the Society to its present position [cheers]. Now look at the Council sitting at that board. They are all elected by each other—they are not elected by the Society at large. We really did not know who was the President of the Society. I heard a whisper that Lord Aberdare was to be the President, and it was very likely he was as good a man as could be got in England [cheers]. But nine out of ten gentlemen here were not aware that Lord Aberdare was our President. Is it, under these circumstances, just that we should pledge ourselves to any arrangements so loosely placed before us, and especially when those arrangements were extremely beneficial to Her Majesty's Commissioners? I do not think we have anything to do with the Commissioners but pay them what is justly due to them [hear, hear]. I believe that all legal complications respecting legal documents will be a curse to the Society. At all events, I am quite sure that what takes place to-day will not give confidence to the public at large, or induce those to subscribe who might be inclined to help us out of our difficulties. But will they do so when they find such complicated terms have been placed before us, and that we have not got time to consider them? I do not blame these gentlemen who have prepared these plans, because I am sure they have worked very hard to get the business into ship-shape for to-day [hear, hear]. But that is not a reason why we should be satisfied. We have not had a reasonable time to consider whether we should adopt these agreements or not, and as men of intelligence and men of business our only alternative is to adjourn the Meeting to a future day [hear, hear]. I beg to second the resolution.

Mr. GURDALL.—Although I agree with very much of what has been said by the two last speakers, yet I do not fall in with all their remarks, for I looked upon the appointment of the Council as a *fait accompli* [hear, hear], and for my part I shall give the Council every support. Still, at our last meeting a new member of the Council held out to us that he had a plan out and dry for the rescue of the Society from its difficulties, and that the Council would come down to-day and submit the plan to us. I may remark you have not stated the rights you have acquired by the agreements. We are all aware you cannot obtain a much larger income than you have without resorting to artificial schemes such as that of the skating rink. I think you have rashly entered into some arrangements or agreements by which you intend to raise your income to £10,000 a-year. For my own part I do not see how that is to be accomplished. I must say I do not hold with the remarks made against General Scott, because I am sure he deserves our thanks [hear]. I did not believe in him having a seat at the Council because I felt we were in a state of dependence while he was there. It is all very well to talk about getting £7000, but I am sure unless you have some tangible security it will be a difficult matter to get it.

Admiral HORNBY.—I wish to say I did not state at the last

meeting that I should be prepared to-day with a cut-and-dry plan to show how our income might be raised to £10,000. Still, I believe it can be raised to that amount.

Mr. GURDALLA.—Will you be good enough to say if you have any hope of raising the £7000?

Admiral HORNBY.—I can tell you this, that a gentleman present has offered to lend us £5000 [applause].

Mr. GURDALLA.—I am sure we are all very glad to hear that, for I do not like underhand dealings. I like plans and arrangements which everyone can comprehend.

The CHAIRMAN.—Be good enough to keep to the agreements.

Mr. GURDALLA was understood to say he should support them.

Mr. BOHN remarked that he was on the Committee when the £50,000 was raised. He opposed the raising of it, but Dr. Lindley, Sir H. Cole, and others carried the day, so that £50,000 had been the source of all their misfortunes [hear, hear]. When they had Ohiswick gardens they did not owe £10,000. He had offered to keep the gardens for £100 a month and make them successful. But the Society had encountered every opposition at the hands of the Commissioners [hear, hear], and at last they had £50,000 tacked on to them. As to raising money on the security of the Society, as it at present stood he very much doubted it could be done. He would lend the Society £10,000 to-morrow if they gave him security, but he did not like the security they offered at present. Having commented on the way in which the forty-guinea subscribers, of whom he was one, had been treated, Mr. Bohn said the Society had got into that position that they were little else than the vassals of the Exhibition Commissioners, and, for himself, he should not vote one way or the other. He was sorry that by a little mutual giving way much more had not been done for the interests of the Society [hear, hear].

The CHAIRMAN.—I can assure you we shall take the case of the forty-guinea subscribers into consideration in laying our scheme before you.

Mr. PINCHES.—There are two propositions before us—the first is that of adjournment because of the insufficient number of Fellows attending the Meeting, and the second is that the Meeting should be adjourned because the agreements have not been a sufficient length of time in our hands. I think on the first ground it would be idle to support the adjournment of the Meeting. I am aware London is thinning rapidly, and no part of it more than that in which we are (South Kensington), and I am afraid if we adjourn the Meeting for two months, instead of having fifty Fellows we should not have five [hear, hear]. Upon that ground I shall not vote for adjournment. On the other hand I think gentlemen have much underrated the opportunities they have had of looking into these agreements. I really think with forty-eight hours before us it was quite possible to master these documents [hear, hear], and to come sufficiently near to the gist of the whole case [hear, hear]. In considering this question, I think we very often lose sight of the peculiar position in which the Commissioners stand. However much they may feel disposed to help the Society out of its difficulties, they are after all dealing with a trust fund [hear, hear]. Taking all these circumstances into account, and being very much better acquainted, by going through very voluminous documents, with the relative positions of the two bodies than most of the Fellows, I am very much inclined to think, however much you may wriggle and distort yourself, and feel unutterable anguish at your position [laughter], you can't wriggle yourself out of it [hear, and renewed laughter]. We have got into a mess, how can we get out of it? [hear, hear]. Fifteen or sixteen years ago you made a most unfortunate bargain, which in commercial circles was without a precedent. A sum of £50,000 was placed upon a lease of twenty-one years which may be forfeited at any moment, and I understand the Commissioners repudiate any responsibility in regard to it.

Mr. HAUGHTON.—They are bound to take the responsibility of half of it if they do not renew our lease—responsibility, say, to the amount of £30,000.

Mr. PINCHES.—Well, we said we should pay the rental, but we have not paid more than twice; and if we do not pay it next year our lease is forfeited. How can we pay it? We can't pay our prizes, and how can we pay £2400 rent? That being our position, what is the use in talking of trifles? [hear, hear]. I say, cast the Commissioners overboard if you can and float the Society by yourselves; but, looking into the relations between yourselves and the Commissioners I say such a thing is impossible, and that, whether you like it or not, you are bound in a sort of partnership. How are we to raise the £7000? It is certainly very pleasing to hear that £5000 is to be lent us by a gentleman.

Mr. BOHN.—On interest.

Mr. PINCHES.—And on some security.

Admiral HORNBY.—I shall explain.

Mr. PINCHES.—In any case our rent is not paid. How can we pay it? The gentlemen who moved and seconded the motion for adjournment appear very uneasy about that second paper, but it really seems to me to refer to details which are of no real

moment. It is a sort of mutual accommodation—not, I hope, on the Collie system [a laugh], and one that, I think, will tend to the favourable working of the Society. Then comes the question, Can we raise our income to £10,000? I think by raising the subscriptions to two guineas or three, and in other ways it can be done. I think on the whole the terms come to be favourable. We are not in a position to dictate terms to the Commissioners, and I don't think we can do better than accept those we have now obtained [hear, hear].

Dr. MASTERS expressed his unqualified disappointment at the Report presented to the Fellows by the Council. It was no doubt a fact that they could not wriggle out of their engagements with Her Majesty's Commissioners. They were all, unfortunately, too well aware of that. It was all very well to have a dog tied-up and a collar put upon his neck, but in this case, taking the Society as the animal, handcuffs, chains, and every conceivable kind of restrictive instruments were put upon him, so that the unfortunate dog couldn't even wag his tail [laughter]. Under the tenth clause the Society could not get a housemaid to dust their windows, to sweep-out their premises, or, in fact, do a single thing [hear, hear].

Mr. HAUGHTON thought there was some misapprehension as to the tenth clause. It so happened an agreement was entered into some time ago between the two corporations. The Commissioners had erected the towers over the orchard house, also some buildings of minor importance, and one also of great importance—the communication between the Royal Albert Hall and the upper part of the conservatory. These they had always the use of, and it would be exceedingly dishonest in the Society to interfere with the enjoyment of them by the Commissioners now [hear, hear]. The clause was simply to secure the Commissioners in the right of enjoyment of those structures.

Dr. MASTERS.—I accept your explanation, I am bound to do so, but your explanation shows the necessity of adjourning the Meeting [hear, hear]. That clause may alter the complexion of the whole thing.

Mr. HAUGHTON.—We will be most happy to give any explanation, but we wish every Fellow who likes to do so to express his opinion.

Dr. MASTERS.—Well, I have expressed my objection.

Mr. PORTER was understood to object to the admission of the public free to the gardens.

Mr. BATEMAN thought it would be well if some of the gentlemen who were disposed to criticise the acts of the Council remembered that neither the present nor the last Council nor the Council before that were in any way responsible for the arrangements which had led to all these difficulties [hear, hear]. If that were only borne in mind all acerbity and hard words would be felt to be out of place there. Looking at the reports of their recent Meetings, he could speak positively that they had acted very injuriously on the prospects of the Society [hear, hear]. People hesitated to join a Society which was in such a state of chronic commotion. He did not think any mere legal instruments would effectually help the Society out of its difficulties. As the late Lord Derby said with respect to the National Gallery dispute—that the worst decision was better than no decision at all; and so, although there were some matters in the agreements he did not like, it was, he thought, better to adopt them than adjourn the Meeting for two months. If they adjourned at all it should be for three months. He decidedly thought, from personal knowledge, that the constitution of the present Council had the right ring in it. They must not criticise too closely the terms of the agreements—indeed he could get over any but the tenth clause. He did not understand it, and before they were called upon to agree to it they ought to have a schedule attached so that they might know where they stood. With the exception of the tenth clause he should be prepared to give his assent to the arrangements come to with Her Majesty's Commissioners [hear, hear]. He did not believe there was any definite motion before the Meeting.

Mr. HIBBERD.—Oh, indeed there is.

The CHAIRMAN.—Yes, there is a motion for adjournment of the Meeting.

Mr. DAVID WOOSTER referred to the sixth clause—viz., "The Society shall not accept any more life compositions without the written consent of the Commissioners." Mr. Wooster said he was under the impression that there was a clause in the Charter which required the Council to set aside a certain portion of the life compositions to form a sinking fund for the ultimate redemption of the debenture debt [hear, hear]. There was another clause which enjoined the Council to reserve three-fifths of the earnings of the gardens after legitimate expenses were paid. Now, in common justice to the debenture holders, if that clause remained could they enter into an agreement to that effect? He had seen with great regret some of the acts of the Commissioners with respect to the Council. The access to the offices had been cut off, the room in which they were then met was a common passage room, and they could not hear. He wished to know whether the Commissioners had any right to the upper arcades on the north-east and north-west part of the

gardens. What had become of the magnificent tent which was the property of the Society? It was, he thought, of the utmost importance the Society should not get into any further difficulties, but smooth over those which at present existed.

The CHAIRMAN said he believed no compensation was paid by the Commissioners for the tent, but the Society used the canvas.

Mr. S. H. GODSON insisted that the accounts should be thoroughly sifted, and he had no hesitation in saying if they were, instead of having to borrow £7000, they would have in hand at the present moment more than that amount [hear, hear]. Plenty of dust had been thrown in their eyes from time to time, and he was not surprised that gentlemen were afraid of coming to that Society. He was satisfied, however, that if right took place the Society would be as solvent as any merchant in the city of London. He should suggest an adjournment for three months.

The CHAIRMAN observed that they owed £150 for prizes and £950 amount of interest on debenture debt due in August.

Mr. SMILEY HARRISON and Mr. LIGGINS said they were in favour of Mr. Godson's suggestion for a three months adjournment.

Mr. BORN asked, What had become of the Society's property? What about the arcades?

Mr. HAUGHTON said they were built by the Commissioners, but the Society had a right of way, and the Commissioners proposed to let the Society have possession of them as long as the Commissioners did not themselves require them. They were constructed by the Commissioners with the permission of the Society, and the latter was allowed to retain the use of them so long as the Commissioners did not require them. The upper arcades belonged to the Society. He might say that their rights with regard to passage through the lower arcades under the old agreement were not in any way touched. As to the life compositions, the Council felt that life compositions were a continual temptation to improper dealings. These life compositions which ought to amount to a considerable sum were now non-existent. The Council wished to protect the Society from the confusion created by the life compositions. The clause on this point was one the Commissioners would not insist upon, but it was the unanimous wish of the Council that it should be agreed to. He was sorry to say the finances of the Society were in a deplorable condition. They were obliged to wash their dirty linen in public, but the Council felt they ought not to ask the indulgence of the Fellows because they had done nothing to bring about these difficulties—they came to them as an inheritance, and he might say the Council had worked hard during the last month to get the Society out of its difficulties.

Mr. LIGGINS asked, whether it was not by the Council on which General Scott and Sir Henry Cole were sitting the life-composition money was first misappropriated?

Mr. HAUGHTON said the question was rather irrelevant, but he should be happy to answer it if he could. The Society, at the present moment was in great financial embarrassment. They had not paid their debenture interest, and the money in hand was insufficient for the purpose. The Council felt they ought not allow the time to pass over without setting their house in order. The agreements give them three years—take the matter as they liked—to do that, and by that time they would not put anyone in a worse position than before, except, indeed, the Commissioners.

Mr. GODSON.—And the debenture holders.

Mr. HAUGHTON.—No, but I will come to that. The arrangement will save off the forfeiture which was staring them in the face—a forfeiture which would involve the actual confiscation of this interest of the debenture holders. It would enable them to pay every farthing they owed except the debenture debt, and, at the end of three years, if the Commissioners put an end to the agreement, they must take the Society's debt on their own shoulders. He had the fullest confidence in the friendly intentions of the Commissioners towards the Society. The Commissioners had shown it in their negotiations with the Council [hear, hear]; and certainly without the great personal exertions of General Scott in the interests of the Society the Council could not that day have presented the agreements to the Meeting [cheers]. The consideration of time alone seemed conclusive against the motion for adjournment. He would remind the Fellows that as time had been going on the Society had been getting worse terms. As to the bank holidays, he might remark at present on certain days the public were admitted to the gardens at a charge of 2d. The Commissioners gave the Society their credit, took the responsibility of the new debt, waived the forfeiture, and made the Society a present of the £2400 due next year. In return for that what did the Commissioners ask? That the Society should admit the public on bank holidays, as they were now admitted, at a charge of 2d., or "at such charge as shall be approved by the Commissioners." The Commissioners believed a charge ought to be fixed so as to prevent injury to the gardens. Then with respect to the agreement as to the access; it should be borne in mind that by the existing agreement the Commissioners had a right to stop-up

that way from Kensington Gore, and to give the Society another mode of access, and to stop it up and give a fresh one from time to time as they pleased. That being so, the Society would be better off under the new than under the existing agreement. As regarded the tenth clause, the Commissioners would not have a right to go anywhere where they were not at present. They had got the places referred to at present, and had a moral right to enter them. They had been asked why they did not pay the Commissioners. Well, after what had passed in that room on recent occasions it appeared to him that question must not have been seriously put, but put to place the Council in a state of embarrassment [hear, hear]. Every Fellow knew there was not the slightest hope of paying the Commissioners the £2400 next year, and that if it was not paid there would be forfeiture, which meant the destruction of the Society. He might remind the Fellows that before the Society came to the South Kensington Gardens its income from subscriptions never reached £3000.

Mr. BORN.—That was at Chiswick?

Mr. HAUGHTON.—Yes.

Mr. BORN.—We did not want it.

Mr. HAUGHTON.—The South Kensington Gardens bring us in a larger income than they take out of our pockets.

Mr. LIGGINS.—That must be a mistake; if it were so we should not be in difficulties.

Mr. HAUGHTON went on to say a fine room had been provided for the Council and members.

Mr. PINCHAS then moved, "That the Reports and Agreements laid before the Meeting be approved and sanctioned."

Mr. BARTMAN seconded the motion.

The CHAIRMAN then put the motion for adjournment as an amendment to that for the adoption of the Reports and approval of the Agreements.

The amendment was lost, nine hands having been raised for it.

Mr. GODSON said he should like to move another amendment to the effect that the Council be requested to issue a circular to all the Fellows asking for contributions towards next year's rent. He was prepared to give £25, and a friend of his would give at least £25.

The CHAIRMAN.—Do I understand you to mean that we should send a begging letter to each Fellow?

Mr. GODSON said he meant a circular asking for contributions.

Admiral HOSWY thought their position was very disgraceful, as they were liable to be put into the County Court for a few pounds; but would they be putting themselves in a better position by sending round what the Chairman characterized as a "begging letter?"

Mr. LIGGINS thought it would be well if a circular was sent to the Fellows with respect to their subscriptions, which he believed fell due in January. Last January 1200 subscriptions were not paid. He should hope that in the coming year that the disunions which had become necessary would be matters of the past [hear, hear]. They must put their shoulders to the wheel to bring the Society round and get the amount of money they required.

The motion for the adoption of the Report and agreements was then put and carried with two dissentients.

Admiral HOSWY said that in the early part of the proceedings allusion had been made to the fact that one of the lately-joined members of Council said he had a scheme for raising the subscriptions. Now, he might say he thought some of the Fellows appeared to be a little hard upon the new Council. The members did not come upon it for their own pleasure, but with the honest wish to keep these gardens for the Royal Horticultural Society. He could say the Council had worked hard to bring about the arrangements with the Commissioners, and he meant so long as he had a seat at the Council-board to do his best for the Society. He had looked into the question of how the position of the Society could be raised, and he felt sure if a proper appeal was made, especially to the people of the neighbourhood, and proper regulations were made, a large sum of money would be got together. He looked upon the transfer-ticket system as very objectionable. He was a holder of a four-guinea ticket, which is generally in the drawer of his hall table, and no less than five families called and made use of it [laughter]. He had taken the trouble of looking into the Court Guide, and found that in Prince's Gate and Prince's Gardens about a hundred houses did not subscribe to the Society, and yet the children and the nurserymaids from these very houses used the gardens [hear, hear]. His idea was to raise the money by not pressing too hard on people. They had to consider the rights of those Fellows who had bought life compositions. They must deal fairly with these gentlemen. His own impression was it would be a far fairer and better way that a Fellow should pay two guineas a-year to admit him to the gardens, the shows, and everything else, but that he should not bring other people with his ticket. If he had a small family, say only his wife and himself, let his wife become a Fellow like himself. But if a man had, say, three daughters, let that gentleman pay four or five guineas a-year for a "house ticket" [hear, hear]. If he was told that was too high, he answered that people who lived in

squares paid four or five guineas for a "house ticket," and had not the advantages of conservatories, covered arcades, shows, reading-rooms, and bands. Another idea was that all gentlemen's gardeners who held certificates from their masters to become associates at a guinea a-year to admit them to the shows, and in that way the Society would get some £500 or £600. If they had four thousand Fellows at two guineas, and four hundred "house tickets" at five guineas, they would have more than the £10,000. As he had been taunted with having a scheme, it would not be a bad thing to tell them what it was, whether bad or good. Accordingly, when we have a scheme out and dry we will send a circular to all the Fellows, get them distributed amongst all seedsmen, and call upon the good people of Kensington, if they value our gardens, to put their hands in their pockets and pay for them [applause]. He was sure if the gardens were done away with the value of property in the neighbourhood would be very seriously depreciated, and the enjoyment of the people much interfered with. He believed if the whole thing was done fairly, regard being had to the vested rights of everyone, and if they did their best to enlarge the sphere of the horticultural gardens they would be supported [cheers]. He should gratefully receive any suggestions, which he would put before the Council. For many years the Society had been living up to what would be to any of them ruin—expending in 1875 what they expected to get in 1876 [cries of "hear!"]. They would be able to borrow £5000 by the liberality of Mr. Frenke, who was willing to accept the security of the Commissioners [cheers]. Mr. Frenke said he was delighted to do it. Now these wretched prizes of 1874 were not paid; the 1875 prizes were paid, and this was what had caused the action. As to the hurried way in which this Meeting was called, he might say it had not been so called they could not have got the sanction of the Meeting to the agreements, by which, at all events, they would be able to borrow £5000 and free themselves from the debt of £1900, which was a stain and a stigma upon the Royal Horticultural Society [applause].

The CHAIRMAN said he was very glad to hear so good a scheme. Mr. FRENKE asked, Would it be promulgated before Christmas?

Admiral HORNBY.—As soon as I get the consent of the Council I shall issue a circular stating the whole scheme.

On the motion of Mr. LOGGINS a vote of thanks was accorded to the Council for the excellent explanations that had been given.

The CHAIRMAN, in acknowledging the vote, said all the hard-work had been done by Mr. Houghton.

The proceedings then terminated.

## RED, WHITE, AND BLUE.

DELICATE shades of these colours are well exemplified in three flowers that are now in bloom—viz., *Phlox amabilis*, *Yucca filamentosa*, and *Delphinium Bella Donna*. The latter possesses a beautiful pale blue colour that few plants can rival, perhaps something of the same shade as the pretty little annual *Nemophila insignis*. *D. pulchellum* is another beautiful variety of something the same shade, only tinged with pink and mauve, which detracts from the purity of the blue as seen in the first-mentioned; but as it has a stronger habit and is a free bloomer, it well deserves classing with the unsurpassed *D. Bella Donna*. These plants will bloom from June to September if some of their shoots are pinched off when in their young growth. Also as soon as a stalk has bloomed it should be cut away, others will then throw-up from the crown. When the shoots are in a young and pliable state a system of pegging-down can be resorted to, thus causing the flowers to be produced the height of Geraniums and other bedding plants. Indeed, when managed rightly it is at home either in the border, in isolation on a grass plot, or mixed with other plants.

I do not know a more suitable contrast for planting near it than the *Yucca filamentosa*, as this variety blooms more frequently than its fellows with grander foliage; but, again, it is more particular as to the soil. I cannot understand why a plant so beautiful and one so moderate in price should seldom be seen in gardens. What can be more elegant and yet stately than its flowering spikes, growing to a height of 5 or 6 feet with a wax-like appearance, which are beautiful at all times, perhaps mostly so in the evening and twilight, when through the subdued light they appear more than ever to stand-out in their purity, and emit a delicious Magnolia-like scent? Their delicate bell-shaped flowers invite a close examination, for there is not the crush of blossoms one generally sees in the *Y. gloriosa* and *recurva* which bloom at uncertain intervals of years, when the idea might strike one that the blossoms of several years have been condensed into one, the stalk being

so crowded with bells that the individual beauty is thus in a great measure lost. Like all other flowers with characteristic foliage, *Yuccas* look best either massed, isolated, or in a line—anything rather than the system of dotting.

*Phlox amabilis* blooming at the same time is a valuable addition to the others, its salmon-cerise colour being also strikingly delicate. When seen in company with the *Yucca* and *Delphinium* it completes a perfect trio. Thus we have in bloom together three flowers most delicately lovely, attractive, and perfectly hardy, and these are only three of those hardy gems that should be the prominent features of all gardens.—HENRY COOPER.

## ROYAL HORTICULTURAL SOCIETY.

AUGUST 18TH.

FRUIT COMMITTEE.—Henry Webb, Esq., in the chair. The subjects submitted to the Meeting were not numerous. Mr. TILNEY, gardener to the Duke of Portland, Welbeck, sent a seedling *Nectarine Welbeck Seedling*. It has been raised from *Bruno*, and has considerable resemblance to that variety, except that the fruit is darker at the stone and more highly coloured in the skin. The fruit was not in condition to judge of the flavour. Mr. W. PAUL of Waltham Cross Nurseries sent a collection of fruit, including an *Early Pear*—the name was not determined, it resembled *Beurré Giffard*; a dish of *Oullin's Golden Gage Plum*; nine dishes of Apples, comprising very fine specimens of *Duchess of Oldenburgh*, an excellent cooking and dessert Apple; *Irish Peach*, a very fine dessert Apple; *Summer Golden Pippin*; *Lord Suffield*, a fine culinary Apple; *Thorn*; *Olin* and *Kerry Pippin*; *Early Julien*; and *Sugarloaf Pippin*, excellent for culinary purposes. A vote of thanks was awarded for the collection. A scarlet-flesh Melon named *Champion* of England was sent by Mr. J. ANDERSEN, gardener to W. Hutton, Esq., Kidderminster. It resembled *Little Heath*, being rather more deeply ribbed; flavour indifferent. Mr. W. FORGE, Walkergate, Beverley, sent a green-fleshed Melon, inferior to *Victory* of Bath.

Mr. B. DEAN, Ealing, sent a Japanese Radish, distinct from the Californian. The Committee referred it to Chiswick for trial.

FLORAL COMMITTEE.—Dr. Denny in the chair. Only a limited number of plants were exhibited in the Council-room, but the few were distinct. A first-class certificate was awarded to Messrs. James Veitch & Sons for a remarkable Fern, *Adiantum Luddemannianum*, in which the pinnae are metamorphosed at the extremity of each frond in a not more curious than constant manner, every frond being surmounted, as it were, with clusters of green florets. It is a remarkable and distinct plant, and totally unlike any other *Adiantum*. They had also a like award for *Macleodella Davisi*, a species with bright yellow flowers; it is exceedingly floriferous, the small plant exhibited having over twenty flowers, small, but literally as "bright as a Buttercup." The species is thoroughly distinct, and is likely to become popular. They had also *Artocarpus laciniatus* metallicus, a plant with large Vine-like lacinated foliage of a dark bronzy colour. If it proves adaptable for sub-tropical gardening it will be an acquisition; a second-class certificate was awarded. They had also *Artocarpus laciniatus* and *Oreton Lord Cairns*, green with yellow midribs, and in form not unlike the *Platynerium*; also an Australian plant, *Orotolaria Cunninghamii*, with white tomentose foliage and a crimson Pea-like flower. It is not unlikely that this may prove an effective white-edging plant. A botanical certificate was awarded.

Mr. BELL had a second-class certificate for *Artocarpus Osmundifolius*, a plant having larger also darker foliage than *A. laciniatus*. The upper surface of the foliage is in colour not unlike the *Perilla*, the leaves underneath being reddish brown. For indoor decorative purposes this is an effective plant, and if sufficiently hardy for the sub-tropical garden it will be a valuable introduction; it fully merited the award. Mr. BULL sent also a collection of *Boheverias* in variety and plants of *Lilium tigrinum*. *Oleanthus Dampieri* var. "*Deutsche Flagge*," was exhibited by Mr. Louis Viewig, Wegeleben, Emdenburgh, Prussia. It is a very robust variety, and was awarded a vote of thanks. A plant of *Sedum populifolium* was exhibited by Mr. Seale, 6, Friar Place, Albion Road, Hammersmith. It is a suffrutescent plant with pinkish white sweet-scented flowers. It is well adapted for the rockery, or as a vase or basket plant. It was introduced from Siberia in 1780. A small plant of *Odontoglossum Luddemannianum* was sent by J. S. LAW, Esq., South Lodge, Southgate. A spike of a seedling *Amaryllis* of the *Belladonna* type, with fourteen beautiful rosy flowers, was exhibited by Mr. BOWLING, gardener to Sir H. W. Parker, Richmond; it is a very fine variety.

Twelve varieties of *Verbenas* were sent by Mr. Eckford, gardener to the Earl of Radnor, Colehill House. The trusses and pipes were very large, and the colours distinct, embracing scarlet, purple, rose, and white. First-class certificates were awarded to *George Brunning*, purple with white eye; and *The King*, rich



rosy pink. Mr. Turner, Slough, exhibited a box of twenty-four very fine varieties of Verbenas, also bouquet Dahlia Triumph, a red variety of faultless shape; and Roses Rev. J. B. Camm, one of the most sweetly scented of all Roses, and of good form—it is of a full rose colour, and the perfume is that of the old Cabbage Rose; and Miss Hassard, a variety somewhat resembling Marguerite de St. Amand. Mr. Reed, gardener to J. H. Johnson, Esq., Mountains, Tonbridge, exhibited flowers of a buff seedling Carnation. Mr. G. Smith, Hedge Farm, Edmonton, exhibited blooms of a seedling Dahlia Bridesmaid. It is a delicate lavender-tinted flower of considerable promise, but the blooms sent were not quite perfect. Mr. Smith, Hornsey Road, Islington, had blooms of his new sport from the well-known Pelargonium Vesuvius. The blooms are semi-double, and the trusses are as freely produced as those of the normal variety. It has had a first-class certificate awarded, and will become a favourite for market and bedding purposes. From Mr. E. Dean, Ealing, came a plant of *Phlox Drummondii splendens grandiflora*, a rich crimson-scarlet variety with a white eye and very effective; also out blooms of dwarf *Tropaeolum* in four varieties of *T. compactum*—viz., Lustrous, scarlet; *Coccineum*, scarlet; *Aureum floribundum*, yellow; and *Carminatum*, carmine, all useful for bedding purposes. Foliage of a Golden Poplar came from Mr. Parker, Tooting, the variegation being very bright. It is a variegated form of *Populus angulata*.

The condolences of the Committee were expressed towards the friends of Mr. Taylor, of the well-known firm of Messrs. Webber and Co., fruiterers of Covent Garden Market, whose death was announced. Mr. Taylor was a member of the old Pomological Society, and subsequently of the Fruit Committee. He was a first-rate judge of fruit, and an estimable man. We join in the expressions of regret at his sudden demise. He was seized with paralysis a week ago, and never rallied.

### EARLY YORK AND EARLY ALFRED PEACHES.

I HAVE always been led to believe that Early Alfred Peach is far superior in all respects to any of our previous early varieties. I had not before this season a proper opportunity of testing its merits in this respect, but this year I have a tree of each of the above-named varieties growing close together, and of the same age. Now, if anyone were placed in front of them they would have no hesitation in saying from their appearance that they are the same variety of Peach.

The Early Alfred has disappointed me, for the old Early York still keeps in the ascendant.

I gathered my first fruit from Early York on the 4th inst., and to all appearance the Early Alfred will not be ripe for another fortnight; but then it will come with all due honours, for it is a good and noble Peach; a most worthy second. A wide gap will take place after them before any of the other varieties are ripe.

We have an exceptionally good crop of Peaches and Nectarines. We have had to thin out hundreds; I believe every blossom set its fruit.

Of all Nectarines let me bear my testimony in favour of Lord Napier. It is far in advance of all others. I find it the hardiest, setting its fruit when most others fail, the most prolific, and by far the largest and handsomest Nectarine in cultivation. May the Rivers long continue to nourish many more such Nectarines as Lord Napier is the wish of—JOHN TAYLOR, *The Gardens, Hardwicke Grange, Shrewsbury.*

### SUMMER PRUNING.—No. 3.

PLUMS require to be gone over at the end of June or early in July; those against walls being earlier than those in the open. The *modus operandi* is the same as in that recommended for the Cherry, therefore it need not be repeated here; the only difference is in the small twiggy shoots, which do not grow more than 3 or 4 inches in length. These, if on the side of the branches, should not be shortened, but left their full length; but if forerights or uprights, in the case of pyramid or bush trees, should be cut back to two leaves. The short shoots will mostly form fruit buds at every leaf, and have wood buds at the base of the shoots or at their points. To pinch-off such shoots at the third leaf is to leave them with no means of support for the young fruit; and though they may attain to the half swelling, yet they generally drop, and the shoots die back to the base. The non-stopping of such shoots causes the trees to be full of wood, but that may be put right by shortening these spur-like growths at the winter pruning, encouraging those close to the branches.

Plum trees, in fact, without the shortening and reducing of twiggy growths soon become crowded with them, and this should be obviated by judicious thinning and shortening in winter.

Pears at the middle of July in the north, and earlier in the south, require to have the shoots stopped. I stop all the side shoots to two leaves and the forerights to one leaf; this keeps them very near home, and admits of light and air being freely admitted to the spurs. The close stopping tends to the formation of spurs in a much higher degree than when the shoots are left with three or more leaves, the last entailing considerable work for the knife at the winter pruning, and its application resulting in strong growths the following year—equally barren of spurs as their predecessors. Succeeding growths are stopped to one leaf, and this renders winter pruning unnecessary. The extensions are trained in their full length, and if the space is covered, close stopping is practised throughout.

Pyramids and bushes are stopped in the same way, the branches being kept as near as may be 1 foot distance apart, their extension stopped at the sixth leaf, and the leading one of a pyramid at 12 inches of growth. All other shoots to be stopped to two leaves, and afterwards to one throughout the season. N.B.—Pyramid and bush Pear trees not unfrequently have short stubby shoots of 2 or 3 inches in length, with the leaves very close together and numerous, their points as well as the next two buds being also fruit buds. Such shoots are not to be stopped, but left entire, as they will in all probability carry fruit the following year, and in the autumn thereof they may be cut-in to the spurs which will have formed at their base.

Apples require to be treated after the manner of Pears, but are rather later; therefore I need not make any remarks upon them.

I now come to the Peach and Nectarine, and I might as well make a clean breast of it by stating that I am no advocate for the stopping the shoots of those trees. Beyond disbudding, which can hardly be termed summer pruning, the shoots require to be laid-in their full length, unless exceedingly vigorous and prone to put out laterals. Lateral growth is of no use, and is best removed; and stopping only tends, with me, to cause many eyes to start, which without the stopping it is only reasonable to conclude would form fruit buds.

Stopping may answer for growths of 14 inches or more in length when we can—at least, those with only moderate experience may make sure of doing it—stop at a wood bud, for then we are certain of wood buds even should laterals result from the stopping at the upper part or extremity of the shoot, as any lateral growth may be stopped at the first leaf; but should we stop a shoot, especially a weak one, midway of a foot growth, it may follow that its only wood bud may be at its extremity (those at the base being of no use to fruit above them), and the fruit setting upon such a shoot will, for want of leaves beyond to draw and elaborate the sap, drop off. When the shoots have leaves mainly of a triple-bud-forming character stopping may, of course, be practised, but unless the trees are in a gross state the stopping is neither necessary nor desirable. Short-pruning is all very well when command is had of the roots, and fruit is sought from short shoots and spurs, but for trees against walls, or on trellises under glass, I see no cause to depart from the long pruning as it is called, but much every way to recommend its continuance.—G. ASHBY.

### MR. JAMES BUTCHER.

To those of us who can look back to bygone days when florists' flowers held their heads high in the metropolis, and the "Horns" at Kennington and the Surrey Gardens were the meeting places of those who fondly loved and tenderly cared for them, the name of James Butcher was well known. He was one of the old school of florists, to whom the quality of a flower was a great deal more than anything else, and who in the matter of Auriculas and Polyanthus could hold his own with the best; but bricks and mortar extinguished him. He lived at South Street, Camberwell, and what with railways and new buildings his garden became so hampered in that light and air were reduced to a minimum; and although he cultivated a few flowers, and indeed not long ago exhibited a very nice seedling grey-edge Auricula called Mrs. Butcher, he mournfully said his days for growing flowers were gone; but he, like most Auricula growers, retained his love for them to the last, and acted as judge at the small exhibition of our Metro-



politan Floral Society. He was one of the few remaining of the old school of southern florists. He was kind and genial in his manner, and many of us who knew him in former days will regret that we have no more the opportunity of seeing him at those exhibitions where florists' flowers were shown.—D., Deal.

### OUR BORDER FLOWERS—HELLEBORES.

WHAT changes have taken place, and what numbers of plants have been introduced since *Helleborus hyemalis* found its way to our gardens in 1596! Now it is known as *Eranthis hyemalis*, of which Mr. Robson wrote so charmingly about a short time ago. Too much praise cannot be lavished on this the first harbinger of spring. The *Helleborus* family, both native and foreign, will flourish in most places. They delight in good loam and decaying vegetable matter. We most of us know how the Christmas Rose, *Helleborus niger*, is appreciated. We are indebted to Austria for this gem of our gardens. It can be turned to good account for decorative purposes in or out of doors, and is useful for cut flowers. The Winter Aconite and *Helleborus niger* must have found their way here together, for we are informed that the Christmas Rose was introduced by Gerard in 1596; he must have been an enthusiast in his day among plants. I wish we could have a reprint of that *Herbal* of his in his own quaint language.

kind, desirable on account of its greenish-yellow flowers. *H. cupreus* is one of the earliest-blooming kinds, of dwarf habit and very distinct, and is a good rock plant. *H. olympicus* has a pretty effect, being one of the tallest growers, having greenish-white flowers. It is one of the early-blooming kinds.

A few of these grouped together have a very good effect. They continue long in bloom, and are perfectly hardy. The choicer kinds may be increased by division, which is best done after the flowering season is past. The greatest recommendation of these plants is that they bloom at a time of the year when many other plants are at rest. The more we see of these plants the more interesting they become.

### COMFREYS.

How varied are the circumstances under which our border flowers are found—some at our feet, while many come to us from distant lands; yet the members of the same family in some unaccountable manner resemble each other in some form or other, though varying widely in aspect and stature. In some we see the giant form as well as plants of smaller dimensions, and in no family of plants do we see this exemplified more than in the family of Comfreys.

*Symphytum asperum* is said by some to be vulgar or coarse-looking, and not one of the pleasantest of plants to do with. Granted; but when in its element a plant of it 7 feet high in pyramidal form is when seen at a distance a sight not soon to be forgotten. It is a capital plant for the back row of a large border, or in a half-wild state left to itself it is equally pleasing. All that is required is a good depth of soil to grow it in—good loam is the best—and it will then take care of itself. *S. officinale* is sometimes met with in hedgerows and by waysides; it is said to be in possession of healing properties. *S. tuberosum* is desirable on account of its yellow flowers; it is said to be a native of Scotland. Another variety called *S. patens* belonging to ourselves is also desirable; it has blue flowers.

*S. bohemicum* is one of the choicest of the race, its beautiful changeable crimson flowers are a strong recommendation to its introduction to all collections; it comes into bloom in the early summer, and continues for a length of time. *S. orientale* is a grand addition to any collection, having white flowers it contrasts favourably with the darker-coloured kinds; a group of these plants are a host in themselves. *S. caucasicum* is a very desirable and distinct species. I have a variegated form of this which I should not like to be without, it being thoroughly hardy and of decided colours; it is of great service as a bedding plant where strong-growing plants are in request, especially for centres of large beds; it is equally effective in border, shrubbery, or wilderness, and is noted by all who see it. There are other kinds that might be named, and ought to be more frequently met with.

They are all easily increased by division in the autumn; good sound loam, leaf mould, or decayed vegetable matter, with a little coarse sand mixed with the soil, and the ground broken up to the depth of 2 feet, will be a suitable medium for them to develop themselves in. They like moisture, but if too wet they sometimes rot-off.—VERITAS.

Fig. 20.—*Helleborus viridis*.

*Helleborus foetidus* should not be passed by unnoticed. Often during the winter and spring in semi-wild places it may be observed showing its great trusses of drooping flowers, as though it were afraid to show its face to the sun; to see this plant en masse in the open spaces under trees in the neglected shrubbery, with their sombre green leaves, where they have been increasing undisturbed for years, dangerous as their medicinal properties are, is a sight not to be despised. *Helleborus viridis*, as seen in some of our limestone districts, in coops, and under hedges, in pastures, is a sight worth going some distance to see. When brought into cultivation its curious-looking leaves and pale green flowers claim for it more attention as an early spring-blooming plant than it is at present receiving. *Helleborus atro rubens* is a more showy plant than the two foregoing kinds, and ought to be more generally cultivated, especially in the shrubbery border, where it is quite at home in moderately good garden soil and in partial shade. A good plant well established is a very desirable object; it should not be often moved. *Helleborus colchicus* is one of the very choicest of the race, and perhaps one of the least known; it requires time and care to have it well established, and when it has done so leave well alone. It ought to be in all collections of herbaceous plants. *H. graveolens* is an early-flowering

### WIRE NET FOR PEAS AND STRAWBERRIES.

To obtain pea sticks in most of the localities of the three islands is no joke; therefore, this year I ordered a quantity of 10-yard lengths of wire netting, 2 feet wide and 3-inch meshes; these I use for Peas and Strawberries. For the latter a 2-foot breadth put over in spring like an arch enables them to rise while in bloom through the meshes, and when they are ripe they are out of the clay, clean for the mouth, beautiful to the eyesight, and ornamental; and for Peas I certainly prefer the half-hoop or arch also with them. For a 10-yard length of netting twelve pins of wood are required 1½ inch square and 12 inches long pointed at one end, six pieces of galvanized wire 1 yard long, and with four staples of the same material; fix one of these upon two pins, leaving 2 feet clear to form your arch for the wire, drive your pins into the ground upon each side of your Peas (say 6 or 8 inches), form your arch neatly, and fix your wire over these, and use Carter's Early Gem Pea, and if your land is what it ought to be you will have a return of, may be, an hundredfold. These with me this year are fully 2 feet high, beating all the others in a center for quantity and quality.

If taller kinds are grown your arch of wire must be regulated

thereto. The kinds I have this year are Bingleader, Laxton's Alpha, McLean's Little Gem, Dwarf Green Mammoth, Fillbasket, and McLean's Best of All. Each and all of them are fine crops. The Strawberries are Keen's Seedling, President, and Elton Pine.

I trust this may be useful to all gardeners, but more so to such as I am. My early Peas are finished, and the gleanings saved for seed next year. Since writing the foregoing I have drawn from a line (sown in April with 12 ozs. of Hairs' Mammoth), the produce of two peas which I sowed, and counting the 10 yards I find there are twenty or more plants on the yard, say two hundred equal to those sent you, as every plant will give the half of these two—viz., over forty pods each.

All wrinkled Peas should be sprung, picked, and planted. My experience for myself and others exceeds half a century, and I am now—OLD SECTY. JACK, Jedburgh, N.B.

### THE NATIONAL GOOSEBERRY SHOW.

THIS Exhibition, which was open to all England, was held at the Falstaff Hotel, Market Place, Manchester, on August 7th. The following are the awards and weights of fruits exhibited:—

			Dwt. Grs.
William Ridgway .. Green .....	Premier Prize ..	Shiner .....	33 6
John Downs .....	First Red .....	Stewards' Prize ..	31 18
Thomas Bradley .. First Yellow ..		Ploughboy .....	29 3
Charles Leicester .. First Green ..		Garibaldi .....	29 3
John Bostock .. First White ..		Seedling Cheerful ..	30 9
James Warburton .. Second Red ..		Antagonist .....	29 5
Charles Buckley .. Second Yellow ..		Lord Derby .....	30 28
William Sanders .. Second Green ..		Ringer .....	28 17
Samuel Birchenall .. Second White ..		Surprise .....	27 2
Bradley Bradley .. Third Red ..		Careless .....	25 15
J. O. Minahull .. Third Yellow ..		London .....	29 0
James Salisbury .. Third Green ..		Leveller .....	27 7
George Beckett .. Third White ..		British Oak .....	26 18
James Threlfall .. Fourth Red ..		Succced .....	25 8
William Weston .. Fourth Yellow ..		Telford .....	25 28
John Wynne .. Fourth Green ..		Oldham .....	26 4
Joseph Livers .. Fourth White ..		Stockwell .....	26 13
Daniel Bower .. Fifth Red ..		Postman .....	24 19
Faithful Jameson .. Fifth Yellow ..		Dan's Mistake .....	25 10
John Torkington .. Fifth Green ..		Mr. Clough .....	26 0
Robert Downs .. Fifth White ..		Souter Johnny .....	25 5
		Overseer .....	24 0

			Dwt. Grs.
Francis Oldfield .....	Ploughboy .....		31 16
Charles Buckley .....	London .....		29 11
William Ridgway .....	Bobby .....		27 21
Charles Buckley .....	Dan's Mistake ..		27 0
George Beckett .....	Rover .....		27 0
John Torkington .....	Lord Derby .....		24 16
George Beckett .....	Clayton .....		23 10
James Salisbury .....	Vicero .....		25 18
John Wynne .....	Red Jacket .....		25 16
William Ridgway .....	Telford .....		25 0
John Downs .....	Maccaroni .....		24 18
J. O. Minahull .....	Exander Bay .....		23 21

			Dwt. Grs.
Charles Buckley .....	Leveller .....		28 19
Francis Oldfield .....	Ringer .....		26 20
Charles Buckley .....	Bagstale Hero ..		24 12
William Ridgway .....	Lady Popham ..		25 16
William Ridgway .....	Catherine .....		25 16
Thomas Burrows .....	Drill .....		25 18
Thomas Bradley .....	Mount Pleasant ..		24 23
James Higginbottom ..	Peru .....		24 15
Francis Oldfield .....	Lady Houghton ..		24 12
William Sanders .....	Mr. Boocock .....		24 10
Faithful Jameson .....	Mr. Clough .....		24 14
Daniel Bower .....	High Sheriff .....		24 10

			Dwt. Grs.
James Warburton .....	Shiner .....		30 8
William Sanders .....	Telegraph .....		29 7
John Downs .....	Stockwell .....		25 22
Charles Leicester .....	Esopool .....		25 6
James Salisbury .....	British Oak .....		25 0
William Ridgway .....	Souter Johnny ..		24 10
James Warburton .....	Bough Green .....		24 16
Samuel Birchenall .....	Green London ..		24 13
Thomas Bradley .....	Sir George Brown ..		24 12
Charles Leicester .....	Seedling Cheerful ..		24 11
Charles Buckley .....	Madhouse .....		24 10
William Ridgway .....	Birchen Lane .....		24 6

			Dwt. Grs.
William Ridgway .....	Antagonist .....		26 18
Thomas Bradley .....	Hero of the Nile ..		25 22
James Salisbury .....	Faithful .....		25 14
William Ridgway .....	King of Trumps ..		25 13
William Sanders .....	Transparents .....		24 18
Samuel Birchenall .....	Mitre .....		24 11
Robert Downs .....	Careless .....		24 0
Daniel Bower .....	Overseer .....		25 0
George Beckett .....	Succced .....		26 9
Charles Leicester .....	Weatherproof .....		23 23
Samuel Birchenall .....	Snowdrop .....		22 15
James Salisbury .....	Queen of the West ..		28 6

### SEEDLING SHOW.

			Dwt. Grs.
Joseph Briggs .....	RED.		
William Sanders .....	Dr. Woolley .....		29 5
Charles Leicester, jun. ....	President .....		24 2
John Bennett .....	Negro .....		21 11
	Not named .....		21 10
	YELLOW.		
Joseph Wardle .....	Not named .....		26 0
Charles Leicester .....	Thatcher .....		24 15
James Warburton .....	Pretender .....		23 18
William Wilson .....	Clara .....		21 17
	GREEN.		
Charles Leicester, sen. ....	Cheerful .....		30 9
William Jones .....	Boughton Heath ..		21 20
Charles Leicester, jun. ....	St. Warren .....		21 6
Francis Oldfield .....	Hollin .....		21 9
	WHITE.		
Joseph Weston .....	Falstaff .....		28 4
William Sanders .....	Practice .....		21 11
John Kitchen .....	Not named .....		21 8
John Partington .....	Bury Lane .....		20 1

### PRIZES FOR THE BEST-FLAVOURED GOOSEBERRIES IRRESPECTIVE OF SIZE.

1st prize for 12 Red Gooseberries ..	John Downs .....	Ploughboy ..	
2nd " " " " " " " " " " " "	Charles Leicester ..	Lord Derby ..	
1st " " Yellow " " " " " "	Daniel Bower .....	Leveller .....	
2nd " " " " " " " " " "	John Bostock .....	Seedling .....	
1st " " Green " " " " " "	Daniel Bower .....	Telegraph ..	
2nd " " " " " " " " " "	John Bostock .....	Stockwell ..	
1st " " White " " " " " "	George Beckett .....	Succced .....	
2nd " " " " " " " " " "	Thomas Berrett .....	Careless .....	

—CHARLES LEICESTER, Nurseryman, Macclesfield.

### CARNATIONS AND PICOTEEES.

MR. DOUGLAS need not have "swallowed me up quick" for the observations I made upon the exhibition of Carnations and Picotees, for I thought I very carefully guarded myself from the charge of imputations of bad practices against any of the exhibitors; but I noted it as a curious instance of the ethics of the exhibitors of florists' flowers, that one flower may be metamorphosed with impunity, whilst in another it is a disqualification. And when I said the public are deceived it was nothing more than this, that outsiders believe they have only to procure these sorts, cultivate them well, and they can obtain such blooms. And the burden of my statement is this, that if ever so well cultivated, an exhibitor who can dress a flower well can beat to nothing one who is not up to it. As to Mr. Douglas's flowers, I made no allusion to them in particular. I heard a somewhat similar observation to that which he alludes to, but these words were added—"a little more dressed." I am also aware that all flowers do not require this dressing. Let me take two in the same class. One, Edith Dombain, never splits a pod, the flowers open regularly, and it hardly requires the placing of a single petal; but take Mrs. Fordham, a large, full, and thick-podded flower, and I maintain it is utterly impossible to exhibit it as it was shown at South Kensington without pulling out a considerable number of petals and so altering the entire build of the flower, and it is that which constitutes the great difference between north and south. Such flowers will not be tolerated at the National Show; and I should very much like Mr. Horner to tell us what is the meaning of the rule that if a flower be mutilated the stand is disqualified.

Say what one may, I contend it is a very curious matter this dressing of Pinks and Carnations. It places them in an entirely different category to many other florists' flowers. You may arrange the truss of an Auricula, the spike of a Hyacinth, and the petals of a Dahlia, but it makes no material alteration in the character of the flower; but let a split-podded Carnation be placed in the hand of a good dresser, and "its own mother would not know it again." And with all due deference to Mr. Douglas, I do not think washing his hands will alter the case. I have no doubt he thinks anyone with care could grow as good flowers as he exhibited, but as to their being able to exhibit them as he did without some lessons and a good deal of practice I beg leave to differ.

Let two instances suffice to bear out my position. I was last summer standing in the garden of a very valued friend in the north of England. We were looking over his Pinks, which were very fine. He gathered one and said, "Give me ten minutes, and I will so metamorphose this flower you would not know it;" adding, "in my day I was the best dresser of Pinks in my neighbourhood." While I heard at South Kensington another friend bemoaning that his wife was not well, and unable to attend to the flowers, for, said he, "I never met her equal in dressing a Carnation." And again let me repeat it, alongside of such, an ordinary mortal would have no more

chance than would a country dressmaker beside M. Worth or Augustus Ahlborn, even though they had the same person to dress and the same materials to work with.—D., *Deal*.

### THE VINE BORDER.

As the growth and fruitfulness of the Vine depend in a measure on the border, its construction and material, I beg to call the attention of intending planters to a few points worth notice. After the site is cleared it is often necessary to ease the bottom of the border. This is effected by putting on rubble and pouring on soft mortar, spreading evenly, allowing it to set, taking care to give a fall for water to the drain in front. Observe, it is usual to place the crocks, &c., inside the pot, not under it; the drainage should not be too rough or sparse—6 inches is ample. Partitions of single brick and mortar are useful, enclosing the border with a substantially-built wall, preventing rats, &c., from burrowing into it. The dry bricks will answer the first year or so, making half the border. Any free soil will grow Grapes. There is nothing better than turfy loam chopped as for other plants, with a free admixture of charcoal and building rubbish, passed through an inch sieve. It is important that the whole of the compost should be thoroughly oxydised, adding very little manure, well mixing and making firm in the border. Avoid treading in future, wet or dry.

The next point is manure. For young Vines solutions are easily applied, also for fruiting Vines a freely soluble manure applied during growth is the best stimulant. I have no idea of burying bones. Bone dust and blood manure with stable dung will give an unusual increase of fruit if properly applied. The bone dust should be put on after the Grapes are out (December) with a sprinkling of blood manure or guano, and covered up with fresh manure and shutters if outside. Blood is again served out twice or thrice during growth with plenty of water. I need scarcely add, with other proper attention first-class Grapes will be produced.

N.B.—I am perfectly satisfied much of the shanking, &c., is due to mutilations with the knife during growth.—C. PRUNER.

### SPURRING MORELLO CHERRIES.

HAD our talented friend Mr. Taylor read the first part of the paragraph relating to the summer pruning of the Morello Cherry (see page 65), I do not think he would have found other than a coincidence in the views he expresses at page 108. There is a difference, however; Mr. Taylor advises "disbudding" in addition to "pinching." Disbudding I do not practise nor advise, as every shoot the Morello Cherry produces may, by stopping to three leaves, be had fruiting the following season, and this without crowding, even when the laying-in practice is adhered to. Beyond this I fail to notice any difference in the views expressed at page 65 and those at page 108. If Mr. Taylor, however, objects to spurring the Morello Cherry on account of the greater cropping and quality of fruit of trees treated upon the orthodox laying-in of young wood as compared with those spur-pruned, I must testify that such is not my experience.

It was not, I believe, until Mr. Rivers gave us the Morello upon the Mahaleb stock for cultivating as pyramids that spur-pruning for this tree was thought of; and finding spur-pruning to answer for trees cultivated as pyramids, and limited very often as they and wall trees are to space, I considered, that answering well for pyramids in the open, it would be equally available for those trained to a north wall, and the result has been equal to anticipation. The trees spurred bear as well as those with the wood "laid-in," and if anything better, for there are less unfruitful parts of the past or current year's growth, the spurring increasing the fruitful and diminishing the unproductive parts, the trees spur-pruned being masses of fertility from the multiplication of the fruitful parts which stopping entails. It is easier for the roots to cater for two or three leaves, than for the leaves upon a shoot a yard long.

I have trees treated both ways—shoots laid-in and shoots closely stopped, and the advantage is decidedly in favour of the spurred trees. The fruit is more abundant, as fine, and ripens earlier, which is only what may be looked for from the spurring admitting the light and air to have full access to the leaves and fruit. There are no long laid-in shoots nor bare useless wood to support, which first overshadowing the fruitful shoots to their injury can only, in a full-trained tree, have place until exhausted shoots are cut out. No tree, especially a fruit

tree, should, in my opinion, be allowed to form useless parts; and as exhausted shoots are made such only by the mode of young laid-in wood, I consider it better to leave a practice, old and good as it may be, for one easier performed, less exhaustive, and equally advantageous in quality and quantity of crop.

"When the idea is to economise labour," writes Mr. Taylor, "and to have a fair return for the same, trees should be trained in the way their natural habit suggests; and it is just as wide of the mark to spur Morellos and Black Currants as it would be to train an Oak tree to a balloon trellis." Economise labour, indeed, by laying-in shoots of Morellos a yard long and cutting-out exhausted shoots! Whether is easier—requiring less time—to stop a dozen shoots, or lay-in growth a yard long, to cut out exhausted wood and afterwards nail such shoots? By the latter mode more skill and time is required, and greater expense is incurred in nails and shreds, and the work is less comfortable to the operator. As to "natural habit," what is there natural in training a tree to a wall? Nothing natural whatever; the whole is artificial, as is that of a tree trained as a pyramid, for the habit of the Morello is diffuse, forming a round head as diffuse and as pendant as a Beech, being very much like the Bird Cherry (*Cerasus Padus*).

If the object be to "economise labour," it will best be sought by planting standards of Morellos, as is practised with others of the same family, also Apples, Pears, &c., in orchards, and let them take care of themselves. They in a few years will give bushels of fruit, but trees in this natural state do not afford proportionately heavier crops than a pyramid tree, which from its growing in a circle of perhaps 2 yards diameter, and being only 2½ yards in height, is more suited to the proprietor of a small garden, who in the space required for a standard tree in its "natural habit" expects to supply his wants in Apples, Pears, and Plums as pyramids as well as Morello Cherries; and how is the proprietor of a small garden to have his Apple, Plum, and Cherry pies, as well as Pears to stew, with some of all in a ripe form to refresh himself, if he do not limit them to allotted space by artificial means? It is not a question of training "an Oak tree to a balloon trellis," nor of spurring the Black Currant; but I see no objection to the latter, any more than to spurring the Morello Cherry, if by so doing we so overcome natural habit by cultivation as to make it subservient to the wishes and requirements of man. No trees are so profitable on account of their prolificacy as pyramidal Morellos spur-pruned, and two of which I advise to be grown in every cottage garden in the kingdom.

I am very glad Mr. Taylor is striving to make "Pear-growing become popular among our cottagers," and with those surely he will not advise training them as their natural habit suggests, or they will find space for but a small number and variety, or a jungle of unfruitful growth. Spare them this by close summer-pruning, and give us your experience in three years' time of results attending the spurring of Morello Cherries.

Sécateurs are very handy implements. Not a tree I have has such strong wood as to require their use, being easily cut by 4-inch scissors. Were the wood so strong as to require the nip of the sécateur, I should consider the trees wanted curbing at the roots, which is a more certain way of preventing robust growth, and giving in the place of long sappy growths less exhausting and more useful spurs.—G. ASHBY.

### EPIDENDRUM AURANTIACUM.

THE genus *Epidendrum* is one of the most extensive of the whole Orchid family, no less than three hundred distinct species and varieties having been discovered. A large proportion of them have been introduced to this country, but not a tithe of the number is at present to be found in cultivation. The flowers of many of the species are pretty enough; for instance, *E. stenopetalum* has beautiful rose and white flowers, but being produced two or three together instead of in large panicles, as in *E. syriothyrus*, they make no show, and the plant has well nigh dropped-out of cultivation. Many of the species can only be regarded as botanical subjects, and as such have found a place in national herbaria. All the species are stove epiphytes, nearly the whole of them being found naturally growing upon trees, which is a hint as to the system of culture to be pursued. Some of the very finest of the species, such as *E. vitellinum majus*, thrive best on blocks.

The subject of the present notice is a native of Guatemala, and was introduced to this country in 1835. It is one of the

species that grows well cultivated in pots. The pot should be filled to quite three parts of its depth with clean crocks; over the drainage place a layer of fresh sphagnum washed clean; then the compost, which should be of fibrous peat, sphagnum

chopped fine, a few bits of charcoal, and a large proportion of broken pots. If the roots grow into a solid mass of sphagnum and peat this will in time decay, and all the roots in the mass will be seriously injured. When the plant has finished its

Fig. 21.—*EPIDENDRUM AURANTIACUM*.

growth it requires a season of rest, and this is done by gradually withholding water, and only giving the roots enough to prevent the bulbs from becoming too dry.

It succeeds best in the warmest part of a cool house, say a minimum temperature of 50°, and when it is making its growth the compost should be kept moist on the surface by watering it with a syringe or fine rose, and this ought to be done so that the body of the compost does not become saturated. This species, like the rest of the genus, thrives best when the pot or

block on which the plant is growing is placed near the glass, shading from bright sunshine.

#### THE ARRANGEMENT OF COLOURS IN THE BEDS OF THE LONDON PARKS AND GARDENS.—No. 2. DESIGN FOR FLOWER GARDEN ON GRAVEL.

THE design here given represents the beds as laid down on gravel, surrounded with a wide margin of grass. The figures

are formed with Box edging, leaving intervening alleys. There are six entrances, one at each end and two on each side, and in the centre of each a small circular bed with a Rose tree or upright shrub in the centre of it, which takes off the formality. The two circular beds are for vases, which may be made to

add still more beauty to the effect by filling them with drooping plants, which would be very appropriate.

This design should be placed in a level and open space near the house, and be so constructed that all the compartments may be seen from the windows; and if well kept, neat Box

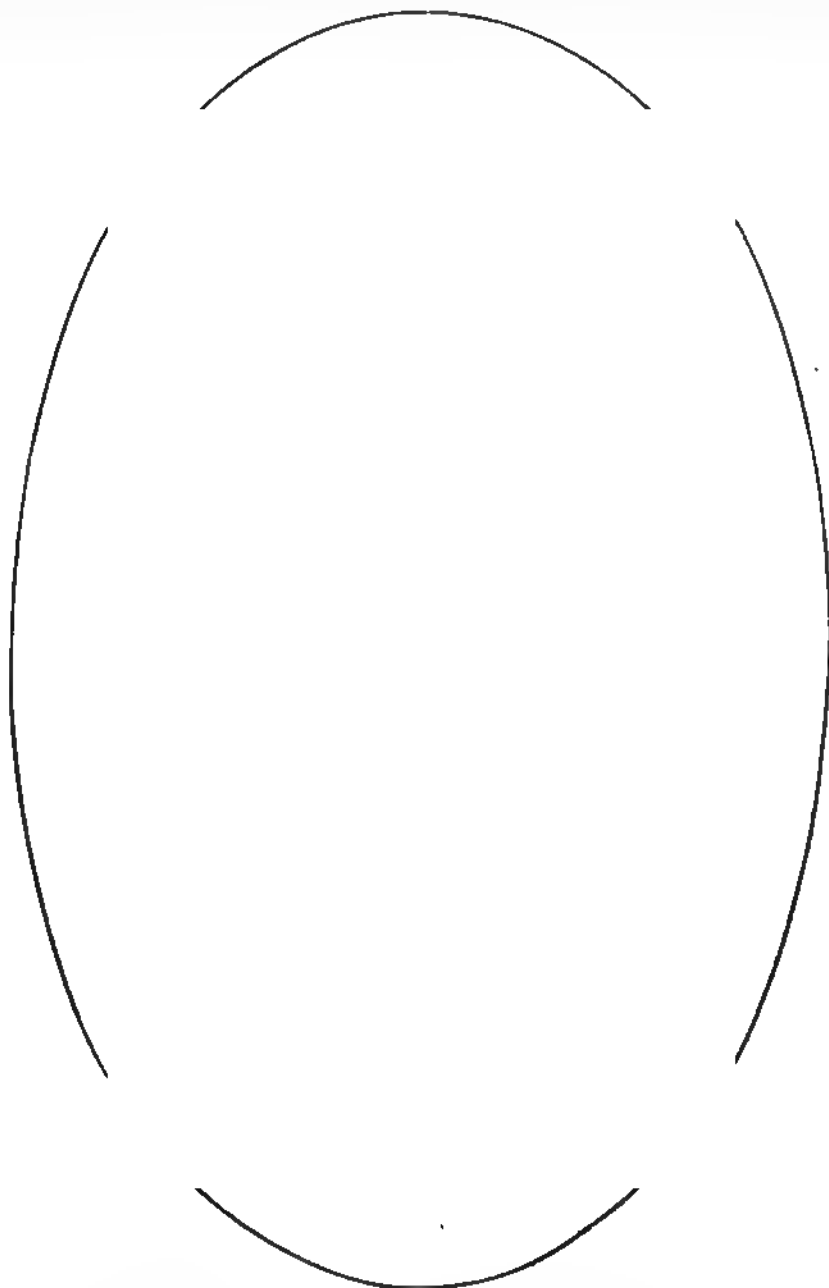


Fig. 22.—DESIGN FOR FLOWER GARDEN ON GRAVEL.

edging, smooth and well-coloured gravel, and smooth grass verge and lawn, the design will be found attractive.

The following is a list of plants and a suitable mode of arrangement for this design:—

- 1, *Coleus Verschaffeltii splendens*
- 2, *Oenothera asplenifolia*
- 3, *Verbena Sportsman*
- 4, *Vase*
- 5, *Coleus Verschaffeltii splendens*
- 6, *Centaurea gymnocarpa*
- 7, *Verbena Purple King*

- 8, Silver-variegated *Geranium*
- 9, Pink-flowering *Geranium*
- 10, Blue *Lobelia*
- 11, *Alternanthera paronychioides major*
- 12, *Lobelia Blue Stems*
- 13, *Stellaria graminea aurea*
- 14, Rose or pink *Geranium*

- 15, *Iris* Lindley
- 16, Golden *Pyrethrum*
- 17, An upright shrub or Rose tree, with a carpet of *Alternanthera amara spectabilis* or *Coleus Verschaffeltii splendens*
- 18 and 19, *Hebeviria secunda glauca*.—H. COLE.

**METROPOLITAN FLORAL SOCIETY.**—We are requested to state that the grand Autumn Show of this Society will be held at the Alexandra Palace on the 24th and 25th inst. A very liberal schedule has been issued, and intending exhibitors must notify

their intention of exhibiting on or before the 16th inst. to the Hon. Sec., the Rev. H. Honeywood Dombrain, Westwell Vicarage, Ashford, Kent.

### HINTS ON VERBENA CULTURE.

THERE are few plants that deck our flower gardens during the summer months which surpass in beauty the Verbena. For many years past it has been a favourite with rich and poor; if, however, we are to believe the reports that reach us from various quarters, its popularity must be on the wane; this is to be regretted, for the great improvement which has taken place in this species of plants during the last ten or twelve years justly entitles it to a place in every garden. No doubt one of the chief causes of its decline in public favour is the difficulty many experience in propagating it in the autumn, and in keeping healthy plants through the winter.

The usual mode of culture is to strike cuttings in store pans in August or September, and place these pans on a shelf in the greenhouse through the winter; the result of this plan generally is, half the cuttings damp-off at the beginning, and those which survive become before spring infested with all sorts of insects.

Having grown for sale large numbers of these plants, perhaps a few remarks showing the treatment pursued may be of service to some readers of this paper. About the third week in August a quantity of 2½-inch pots (generally known as 72's) are filled with light sandy soil; no crock is placed in the bottom. These pots are carried to the Verbena beds, and with a trowel are sunk in the soil; a trailing shoot 6 or 8 inches long is then pegged down on each pot and slightly covered with soil, taking care that a joint of the shoot is in the centre. To prevent its growing and rooting beyond the pot the top is tied-up to a small stick, and the point pinched-off. If the weather is dry the bed is watered every alternate day. In about three weeks the pots will be filled with roots. The young plants are now severed from the old and placed in a shady frame for a few days, and sprinkled with water overhead once or twice a day if they flag. The next step is to shift them into 48's, which must be clean and well drained. Light rich soil is used, and the leading shoots pinched-off to make the plants bushy. Shading for a few days may be necessary if the sun is very powerful, but the plants are fully exposed both to sun and air as soon as they will bear it.

About the middle of October they are removed to an airy shelf in the greenhouse. If there is the slightest sign of aphid or mildew the plants are dipped into a strong solution of Fowler's insecticide. A liberal supply of water at the roots is now given, and through the winter the plants are never allowed to become very dry. Two or three times during the winter the pipes are smeared with sulphur mixed with milk; when the water boils the fume of the sulphur is diffused through the house and mildew prevented.

Early in January the plants are again shifted into 82's, and placed in heat where the temperature ranges from 60° to 70°. In a short time I have an immense quantity of cuttings, which root freely when plunged in bottom heat and shaded. As soon as rooted and hardened a little the cuttings are potted into small pots. If allowed to remain long in the cutting pots the plants become stunted in growth and comparatively useless. The old plants give a crop of cuttings about every ten days. Sometimes a blight appears resembling mildew, but of a dark colour; it is usually caused or greatly increased if the growth has been checked by a sudden change of temperature, want of water, or, as already stated, allowing the young plants to remain too long in the cutting pans.

All plants so attacked are thrown away at once, and the pipes again smeared with sulphur; as the season advances more air is given, and towards the end of April the plants are removed to a cool frame. Those required for stock are planted-out the third week in May in rich soil, and plenty of water given.—H. DUDDELDEN, *The Dorset Nurseries*.

### DESTRUCTION OF ANTS IN GARDENS.

SPEAKING to a gentleman of Ulverston the other day, whose long experience renders him an authority on gardening matters, on the above subject, he kindly consented to write me down his views, which he has done as follows:—

"I have for a long time been favoured with the perusal of the *Journal of Horticulture*, and have frequently seen the question asked, How to destroy ants? and have smiled at the

advice given—namely, sugar in a sponge, oil in a saucer, &c., whilst at the same time I was fighting and trapping them in my own garden, and have at last, I hope, completely succeeded in clearing it of them. As probably some others may wish to do the same, I give my *modus operandi*. I say 'some' others, because I am aware there is a difference of opinion regarding their usefulness or destructiveness in a garden or greenhouse. My garden is situated on high ground, sloping to the south, and is very favourable for ants. Being naturally bare of soil, I have added very much, amongst which, and about the first, was a cartload of ants' hills, the same being recommended to me as being the finest soil. In this consisted my introduction to the pests; and although I have during forty years destroyed many colonies by the aid of boiling water, I have never until within the last two or three years set traps. These traps consist of pieces of slate laid between the plants where the soil is perfectly dry, and they must not be disturbed in any way until a fitting time when the ants are most likely to be at home—viz., on a wet day or in the evening, when you go with trowel and kettle in hand and exterminate them. By adopting this simple yet effective plan I have found only one colony this spring, and have not seen a single ant for months, nor is there one at present to be found on slug-eaten Pears or fruit of any kind—a very unusual thing.

"The ants above alluded to are the red ants; but for two or three years I was troubled with black ants in the Cucumber frames. These were trapped in a different way—by lifting all the ova with a trowel, and depositing it in, say, a 6-inch pot, and inserting the latter in the bed; then invert a pot, a size or two larger, over it. After a week or so every ovum and ant will be settled like a swarm of bees. At night take a bucket of boiling water, and lift the whole colony into it. Such are the effective results of my experience, and I feel assured they will be equally salutary in the case of others who may give them a trial."—BETA.

### NEW BOOK.

*Rambles in Search of Shells, Land and Freshwater.* By J. E. HARTING, F.L.S., &c. With coloured illustrations. London: J. Van Voorst.

THIS is a volume of that class which we always welcome heartily. It renders science readable and interesting even to those who read merely for amusement, and, moreover, it opens an attractive pursuit for the younger members of any home circle. Well do we remember the contemptuous tone in which the query, "Who cares about shells?" was uttered, and we are now able to reply, Read this little volume, and then tell us who is there that ought not to care about shells.

The author has succeeded in his endeavour to avoid being "too technical or systematic;" he has enabled anyone to identify a native land or freshwater shell; and he has rendered the study attractive by detailing popularly the habits and anatomy of the species. One extract will suffice to prove this:—

"In the early days of conchology it was held sufficient to study the shells only of these animals, and the possessor of an extensive collection of such shells might be intimately acquainted with the name, geographical distribution, and proper place in a systematic arrangement of every specimen in his cabinet without necessarily knowing anything of the animal that formed it. Now, however, the conchologist has given place to the malacologist, who, not content with examining, describing, and naming the shell independently of its inhabitant, curiously questions the latter as to its habits and internal structure, and in the case of those which possess a single shell (Univalves), he literally learns the relationship of each species from the animal's own mouth.

"Snails and slugs both have the power of drawing in their horns on being touched, and this is effected by a singular and beautiful apparatus; the tentacle is lengthened by gradually unfolding itself, and not by being pushed out from the base. Each tentacle is a hollow cylinder, to the apex of which is attached a muscle, arising from the retractor muscle of the foot, and by its contraction the tentacle is simply inverted and retracted, like the finger of a tight glove; its protrusion, on the other hand, is effected by the alternate contraction of the circular bands of muscles which compose the walls of the tentacle. As a rule slugs and snails are more liberally provided with teeth than any other animals in the parish, one of our slugs, for instance, possessing no less than 28,000; they are not, however, all in use at the same time. The dental apparatus of our univalves may be described as a tube lined with teeth set upon flattened plates, collectively called the lingual ribbon.



One extremity of this ribbon is open and spread out like a tongue, teeth upwards, on the floor of the mouth, so as to occupy, in fact, the same relative position as the tongue in the mammalia; the roof of the mouth is supplied with a horny plate, against which the open end of the ribbon can work backwards and forwards, so as to rasp and triturate the food between them. The tubular portion of this lingual ribbon is contained in a cavity behind the mouth, and as the teeth in use become worn or broken it is conjectured that they are absorbed, and a fresh set from the reserve in the tube is pushed forward to take their place."

To facilitate the collector's researches the species are grouped according to the soil they frequent; and the identification is rendered easy by the coloured figures of the shells, which we are able to say are most faithful and well executed.

### PETREA VOLUBILIS.

WHILE the ends of the earth are being ransacked in search of new plants, and our plant-growers at home are running after novelties not always realising the glowing descriptions with which they are ushered into notice, there is many a good old plant long introduced, but little known outside botanic gardens, which, if taken in hand and the same amount of care and skill bestowed upon it as on recent introductions, would throw many of the latter into the shade. Such among stove climbers is *Petrea volubilis*, a plant introduced more than a century ago, but of whose existence we venture to think few indeed of our great plant-growers are even aware, and of whose extreme floral elegance and beauty fewer still have any idea. In fact, for profusion of bloom and a certain lightness and elegance in its aspect combined with an exquisite delicacy and pleasing contrast of colour, it is perhaps, without a rival. It is a twining stove shrub, with leaves not unlike those of some of the *Bougainvilleas*, but larger. The flowers are borne in marvellous profusion in elongated light airy racemes. The calyx, which is corolla-like in colour and texture, is divided into five narrow strap-shaped segments, of a very delicate pale bluish mauve, they are about twice the length of the segments of the corolla, which is of a lovely purplish blue, forming a pretty and striking contrast with the pale tint of the widely spreading segments of the calyx. The corollas are rather fugitive, but on the other hand the delicately coloured and flower-like calyces are remarkably persistent, and there is a long succession of flowers towards the ends of the racemes which will be found disporting their blue corollas, and in this way, perhaps, rendering the contrast and effect more unique and striking. In the flowers of *Petrea* we have a colour altogether unique among stove climbers, and one very desirable as regards variety to see on the exhibition stage, where this plant would tell with fine effect if turned out in the same style as we see *Clerodendron Balfourii*, *Stephanotis*, *Rhynchospermum*, *Allamandas*, and other exhibition favourites.

It forms a beautiful object trained to the roof or back wall of the stove, the graceful and elegant pendant racemes hanging in wild profusion, while at the same time there is an airiness and lightness in the floral picture peculiarly its own. It will grow freely in a compost of good light fibry loam to which a little sandy peat is added. Cuttings root freely in sand plunged in heat and covered with a bell-glass. When growing it likes a moist heat and to be watered freely, but when at rest it should be kept rather dry than otherwise. Good drainage is also essential. There are one or two other species almost if not equally pretty as that at present under notice; all natives of Vera Cruz.

The generic name was given in honour of Robert James, Lord Petre, who died in 1742, and of whom the celebrated Collinson writing to Linneus speaks as being one of the "greatest losses botany or gardening ever felt in this island."

At Glasnevin *Petrea volubilis* is trained to the roof of the large greenhouse, which when in flower is more admired perhaps than anything else in the same department.—(*Irish Farmers' Gazette*.)

### FLOWERS OF HARDY TREES AND SHRUBS

AVAILABLE FOR DECORATIVE PURPOSES.—No. 2.

A CASUAL glance is only needed to see how highly attractive are even the most common trees. If we examine them carefully we find that they possess decorative qualities of no mean order in habit, foliage, flower, or fruit. If we traverse our ordinary country roads in spring and early summer we find the Beech in most seasons loaded with fruit, which in its young and bearded state and coupled with the bright green

unblemished leaves, present a natural wreath our hothouses fail to represent. Not less beautiful, but in a different way, is the Birch, its lovely pale green catkins hanging like eardrops from every leaf joint on the delicately-formed stems, which form so striking a feature in this tree, and to which the fruit alluded to gives a still more pendant habit. For the drooping edges of an elevated flower stand I know nothing better when in season than the Birch; but, like the Beech, it is most pretty when in a young state, its foliage at that stage being more pure and unsullied by the elements than it is at a later period.

We now come to a larger tree still, and that is the Elm, one species of which blooms in the greatest possible abundance during the latter part of April and the beginning of May, and before its leaves make an appearance, when its flaky clusters of pale green flowers in some measure resembling Hops, in some seasons so completely cover the tree, and when they fall so completely cover the ground, I have often wondered whether any other plant, native or foreign, is so productive in that way as the Elm; it does not so easily assimilate itself to the wants of the flower stand or bouquet, but in itself it possesses a mass of beauty rendered the more attractive by its abundance. Some trees produce a much paler and more delicate inflorescence than others, but all are pretty.

Still more interesting than the Elm is the Ash, which not flowering in the sense here alluded to until the foliage is pretty well advanced, when we have these beautiful bunches of what are commonly known as Ash keys, which have at all times been favourites with children and not a few grown-up persons either, their beauty continuing so much later in the season than that of most other flowering plants, while the beautifully-pinnated foliage and general outline of the tree give it a charm many other trees do not possess; and the rustic who sticks a bough in the bridle of his team of horses gives them greater grace than is often obtained in a parade where spectacle is the object sought after. Ash keys, therefore, require no further comment just here, so we pass on to another class of trees of which so much has already been said by others that it is not needful to enlarge. The Horse Chestnut requires but little comment, its beauties as a flowering tree exceeding that of most Orchids or tropical plants which I am acquainted with, while its habit as a tree is well adapted for setting off that lovely blossom to advantage. Un fortunately its flower-spikes do not always mix agreeably with others in the stand for the table, they being mostly crooked in the stem, but when obtained from near the top of the tree they work in much better; but it is hardly necessary to say that, like many other flowers, they look better on the tree than anywhere else, and a fine spreading specimen studded all over with blooms is perhaps as handsome an object as can be looked at. Scarcely less so, but in another way and also at another season, is the Sweet Chestnut, which produces long, white, cord-shaped or whip-thong-like scapes of flowers, seated as they are in the midst of a tuft of leaves of the brightest and darkest green, giving the plant a tropical aspect, which its late flowering tends to confirm; branches of Chestnut serve a very useful purpose in outdoor decoration when required late in the season, or where it is required indoors on an extensive scale. Certain it is the Sweet Chestnut is one of the most useful trees we have at this season, its appearance being alike good when gathered as when growing on the tree; while the general aspect of the tree, being of a darker hue than most others, is also in its favour, the foliage generally being good.

The Oak is a less attractive tree in spring than in autumn, its foliage being its principal feature, but that being of a sturdy kind is often brought into use at an earlier age than that of other trees; while in autumn, when it is loaded with fruit, it is very pretty. Other trees have also their beauties: the Norway Maple, Oriental Plane, and Sycamore have all a something-in-common in their copious handfuls of seed vessels; the winged character of these, with other objects of interest attached to each cluster, render them all beautiful in their way; but we have not space to pursue this object further amongst large trees, otherwise some would say that the cones of our Pines are each capable of forming some pretty object, and, in fact, are pretty in themselves. We now pass again to objects of more humble growth.

The Bird Cherry is a shrub not so much inferior to the *Deutzias* as might be supposed for its beautiful blooming qualities; and still more showy and certainly rendered more conspicuous, is the Elder, trees of which seem almost entirely covered with bloom this season. The Elder is a very conspicuous tree in the dusk of the evening when it is in flower.

Not less beautiful, but in a different way, and like the Elder, is perhaps offensive in the odour it emits, is the common Privet, which blooms abundantly, and when allowed to do it produces abundance of shiny black fruit or berries in conical clusters of great beauty in autumn; while in the wet and marshy places the Alder may be met with, producing its globular seed vessels in abundance with its bright green leaves, to be succeeded by a fruit vessel or husk, that looks well the following year if allowed to remain on the tree. Amongst still lower growths we have the Bramble, ornamental when in ripe fruit; the Clematis while ripening its seed vessels, and when its bleached remains clothe some rugged hedge or copse with tufts of cottony-looking down, appropriately called the Traveller's Joy; while descending still lower we have Heaths.

Enough has been said to draw attention to the merits of some of our most common trees and shrubs, the most, if not all, of which are of British origin, and consequently in general within nearly everyone's reach; and the part they are all capable of taking in assisting the now-a-days all-important duty of ornamenting a table, room, or other given space, is such that unless we have the means of falling back on something that can be had in great abundance, there is a fear our exotics will fall short of what is required of them. It is, therefore, with a wish to call attention to the merits of very common things that the above is penned, and possibly a return to the subject by way of calling attention to other hardy plants and their claim to notice may be acceptable; and who knows but amongst the vagaries of fashion our ditches and wastes may have to take their turn in furnishing materials to decorate the drawing and dining-rooms of the great and wealthy, and after the Antipodes have been ransacked of their floral treasures it may be found that many at our back doors are still good? Some good may, perhaps, be obtained by urging the attention of those concerned in that direction.—J. ROBSON.

#### NOTES AND GLEANINGS.

MR. EDWARD LUCKHURST writes from near Uckfield in Sussex:—"The whole of the PEACH and NECTARINE TREES here are in splendid condition, and the crop is abundant and fine. Early Beatrix Peach ripe the middle of July, and a daily dish of it sent to table till last week. Early Rivers Peach keeps up the supply; the first ripe fruit August 2nd. Lord Napier Nectarine is a fine crop; its fruit is just colouring, and some of it already measures nearly 8 inches in circumference. Early Rivers Plum ripe the last week in July, and plenty of its fruit still upon the trees. Early Rivers Damson planted last season also has ripe fruit upon it; this is a great advance upon the older kinds."

—We have received from Messrs. Thomas Kennedy and Co., Dumfries, yellow fruit of RED ASTON or WARRINGTON GOOSEBERRY, arising from a bud sport on a bush of the normal red form. This occurred between thirty and forty years ago in the garden of Mr. Archibald Gorrie of Annet Cottage, Perthshire, who propagated the shoot producing yellow fruit, from which plants were raised which continued to preserve this new character, and which became known as Yellow Aston.

—THE collection of STOVE and GREENHOUSE PLANTS, the property of A. Basset, Esq., Sister House, Clapham Common, were sold on the premises by auction by Mr. J. C. Stevens on the 5th and 6th inst. *Azalea Eclatante* was knocked down for £4 10s.; and *A. Extranei* for £4 15s.; *A. Mrs. Fry*, £6 10s.; *A. Madame Ambroise Verschaffelt*, £7 10s.; *Croton undulatum*, £7 7s.; *Alsophila squarrosa*, £4 10s.; *Dendrochilum filiforme*, £5; *Masdevallia Veitchiana*, £5 15s. 6d.; *Camellias* Countess of Derby and Princess Bacciochi, £7 7s. each; *Camellia Mathotiana alba*, £14 14s.; *Rhododendron Princess Royal*, £7 17s. 6d. The 535 lots sold for £1006.

—A CORRESPONDENT informs us that Mr. Sowerby, the head gardener at Hackness Hall, of which we recently gave an account, completed on the 8th inst. his FIFTIETH YEAR IN THE SERVICE of the Johnstone family. He is still hale and vigorous, and to all outward appearance likely to continue his services for many years. It is a noteworthy fact that there have only been three head gardeners since the formation of the gardens, which took place in 1795.

—THERE is a charming bit of romance about the recent wedding of Harry, the eldest son of Mr. Charles Turner, the florist of Slough, to Miss Elizabeth Poole, only daughter of the late Samuel Bacon, M.D., of Camden Town. The young couple met some years since, boy and girl, when the gallant

youth presented to the blushing maiden a GOLDEN APPLE plucked from the garden of the Hesperides—or, to put it more prosaically—an Orange. From the seed of that Orange, sown by her own hand, sprang an Orange tree. When the Orange tree bloomed for the first time, from its tiny branches were plucked the blossoms which adorned the hair of the bride at the Savoy Chapel.

#### — An old English garden—

"The wholesome Sage, the Lavender still grey,  
Rank-smelling Rue and Cummin good for eyes,  
The Roses reigning in the pride of May,  
Sharp Hyssop good for green wound's remedies,  
Fair Marigolds and bees-alluring Thyme,  
Sweet Marjoram and Daisies decking prime.  
Cool Violets and Orpine growing still,  
Embeathed Balm, and cheerful Galingale,  
Fresh Costmary and breathful Camomile,  
Dull Poppy and drink quickening Setoslae,  
Vain-healing Vervain and head-purging Dill,  
Sound Savory and Basil hearty hale,  
Fat Coleworts and comforting Parsnips,  
Cold Lettuce and refreshing Roes marine."

—We have received the "system of classification" of the UNITED STATES CENTENNIAL INTERNATIONAL EXHIBITION, which is to be held in Philadelphia in 1876. There are twenty-five classes for horticulture, including ornamental trees, shrubs, and flowers; hothouses, conservatories, graperies, and their management; garden tools and accessories of gardening; and garden designing, construction, and management. Pomology comes in under the department of agriculture, and consists of two classes—fruits of temperate and semi-tropical regions, and tropical fruits.

#### WENSLEY.

WELL, what of Wensley, and where is it? It is the capital of Wensleydale in Yorkshire, so much celebrated for its cheeses. It is a small, neat, picturesque village on a declivity on the northern bank of the river Yore, sheltered from the north and exposed to the full sunshine of both summer and winter. What struck me as interesting was the neat cottages and well-kept gardens enclosed by iron fencing, displaying their floral occupants to every passer-by.

There are two triangular village greens; on one stands a monster Elm, the girth of bole at 4 feet from the ground being 20 feet 6 inches, one of the principal branches being 10 feet in girth near the bole, extending 85 feet, the circumference of the branches being something near 250 feet. Round the base of this tree stonework is erected, fastened together with iron brackets in lead, forming a piece of solid masonry, where in days long past formed the gathering-place of old and young when the toils of the day were ended, or probably on those festive occasions when the peasantry and their lords used to mingle in old athletic sports, or may be ages past when the "guid housewives" of the dale here vended their dairy and other produce beneath the shade of this forest tree. In all probability this is one of the oldest trees extant. They used to be seen on all the village greens in the dale, but this is the only one that has braved the storm and is now glorious in decay. Beneath its shade stands the town pump in a stone case of huge dimensions, and which must have stood for many generations past.

The beautiful entrance to Bolton Park is close by. The other green with the fine clump of trees open to the road forms a delightful retreat for the children of the village. Many of the trees here are of immense size, especially Elms and Sycamores: such trees I have seldom seen. Many of the walls in the village are partly covered with *Asplenium Ruta-muraria*, *Sedum acre*, *S. album*, and *Saxifraga tridactylites*. Following the road at the foot of the hill a magnificent stone bridge spans the river Yore, whose banks are fringed with beautiful forest trees; this with the church close by forms one of the loveliest landscape scenes that eyes can look upon. It seems strange that the water-power of the dale has not been utilised for manufacturing purposes, as that power is immense. There are lead mines in the neighbourhood, but I believe they are capable of greater development. Crossing the bridge on the south side of the river I saw on the bank Sweet Cicely, or *Myrrhis odorata*, in abundance. The hedges and roadsides are flower gardens themselves; such masses of *Origanum vulgare* and sheets of Bluebells (*Campanula rotundifolia*), and the Giant Bellflower (*Campanula latifolia*), *Vicia cracca*, and *Ononis arvensis* are seldom met with; there are also *Geranium pratense* and other native plants.

I did not attempt to resist the desire to enter the church-

yard while passing, for there is always something to learn there; and what interested me much was an epitaph which I copied as follows:—"Mr. William Parham, gardiner to the Duke of Bolton, left to the poor of Wensley the use of a 100 pounds for ever. March 20th, 1670."—RUSTICUS.

## NOTES ON VILLA AND SUBURBAN GARDENING.

**PROPAGATION.**—Once more the time has come round when it is necessary to propagate all kinds of bedding plants for next season's supply; and it is as well to say that much time and trouble will be saved if, before the work is begun, a thorough plan is framed according to the means at command for storing these plants during winter. As a rule that plan is chosen which is likely to take up the least space to carry out—that is, the plants are stored away in as close quarters as possible consistent with their health. The aim should be to have these plants well rooted and established for their winter confinement, and not to grow them too much at this time of the year, leaving this to be accomplished on the advance of spring.

Pelargoniums of both the green and variegated class will root readily enough if put in on a warm border of well-prepared soil in the open ground, but then there is the trouble of taking them up and potting them, and some risk of their not being well established before the dull month of November comes in. For an amateur whose wish is to manage things economically, and without involving too much labour, the following plan would be preferable: Procure some boxes about 2 feet long, 18 inches wide, and from 8 to 5 inches deep; make a few holes at the bottom at different places for drainage, and place a piece of broken pot over each hole, and then put a thin layer of the siftings of soil over these; afterwards fill the box level full of fine soil, composed of loam, leaf mould, and sand in equal parts, well mixed together with the hand, press it into the box firmly. Such a box will hold from sixty to seventy cuttings, according to size. They could be made to hold more, but this number is sufficient to ensure their well-doing; if thicker they would be liable to damp-off in winter. Make every cutting firm after insertion, and make sure that the bottom of it is firm upon the soil at the bottom of the hole made for it. Water them well, and remove the boxes to some warm sunny spot on a south border, or under a wall. They may be allowed to have the full sun, which will make them flag at first, but it will do them no harm. Clear the boxes from the ground by placing them on bricks or boards to prevent worms getting in. In three weeks or a month the cuttings will be well rooted, as will be seen by their beginning to grow and flower. The flowers should be picked off, and just the point of each shoot taken out. They ought not to be encouraged to grow too fast; recollect that what is wanted for successful wintering is a close or stocky firm growth, not a strong sappy one. The plants may remain where they are rooted until there is danger from frost, then put them into cold frames or any light airy place where they can have the benefit of sun and a little fire heat occasionally to dispel damp. The boxes may be placed close together, and in this way many hundreds can be stowed away in a small space, and if moving is required it is quickly done at any time.

Variegated sorts of Pelargoniums. If these are rooted in the same way, by which they will do equally well, it may be necessary to take them in sooner, or even in heavy showery weather it will be well to place some glass over them, but it is not necessary in striking them. The variegated sorts require a little longer time to root, and as they are slower in growth also it is well to put them in first. In large establishments, where there is plenty of glass, the cuttings are at once placed in the pit, not in boxes; but the soil is prepared as it is in the open ground, and the cuttings inserted in it. Of course in such places there is the means of applying fire heat when necessary throughout the winter. There is one thing I ought to mention—that is, do not attempt to pull off the dead leaves which of necessity appear during the process of striking root. If you do the chances are that the cutting becomes loosened in its place, and probably does not root for some time after, if it does at all. These dead leaves do no harm at that time, but when the cuttings are rooted then is the best time to clear them off.

With respect to other classes of bedding plants, such as Verbenas, Heliotropes, Lobelias, &c., they will root easily in a frame, say a two-light frame, filled up to within a foot of the glass with first rough leaves beaten firm, then about 8 inches of light sandy soil over these made even, and the cuttings dibbed in about 1½ inch apart each way. Keep the frame moderately close, but shade from the sun, and at times sprinkle the cuttings with water to keep them fresh. After they are rooted they are dibbed into pots or pans about the same distance apart, and after establishing themselves here they are stored away for the winter.

There is another division among bedding plants, which I call the hardier class; these are Gazanias, Variegated Alyssums, and Calceolarias. Now these I always treat very similar—that is, they are rooted in the bed of soil in the frames, and here they

remain all winter, protected from frost by cold dung linings at the sides, and mat and straw coverings for the top. The Alyssums take longer to strike than the others, and should be put in as early as possible, and treated similar to Verbenas; but the Gazanias are not put in till October, and are treated exactly as for the Calceolarias.

I always divide my stock into about four classes; first there is the Alternantheras of sorts, and such-like tender plants, which require heat to root and grow them; then come the others as I have named above, and many thousands are stored away in a very small space.—T. RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

We do not sow our *Cauliflower* seeds until the last week in August, and sometimes not until the second week in September, but taking the average run of seasons the first-named date is the best; the plants become strong before the frosts set in, and are better able to resist them. It is best to make two sowings, about two weeks at the utmost between each. In Scotland and the north of England it is necessary to sow a week earlier. Plants from the earliest sowing are planted in handlights; those later out of doors under a wall or pricked out in a frame, the glass to be used to protect them from frost or from wet. The sorts best adapted for sowing at this time are Early London and Walcheren. Where a large supply is required Lenormand's may be added. A sowing ought now to be made of Prickly Spinach. The soil ought to be rich, and the quarter should be in a sunny yet sheltered position. The spring-sown Onions are nearly ready for pulling up, and if the weather is fine they will be merely laid on the surface of the ground for a few days until they are dry enough for storing. In wet weather we have found it answer to tie them up in bundles, and hang them on hurdles fixed in the ground. We grow four sorts of Onions, and these answer our purpose very well both for autumn and spring sowing—viz., White Spanish, Brown Globe, James's Keeping, and the Two-bladed for pickling. It may be as well to note in passing, that in gardens where the maggot attacks the spring-sown crop, the autumn sowing invariably escapes. The reason of this is no doubt owing to the Onions being considerably advanced in growth before the dry hot weather sets in.

Our early kidney Potatoes have been stored, the variety being Veitch's Improved Ashleaf; there is no trace of disease in any of them as yet. The Extra Early Vermont is also free from disease; but this variety is so degenerated that it is really not worth growing. There is an excellent crop of Dalmahoy Regent in the garden. The haulm had been very much affected by the disease, and a few tubers had also taken it; all the haulm has been removed, and the rows earthed-up. We are not sanguine of this stopping the disease, but it may arrest its progress. We have been digging vacant ground, and planting it with Coleworts and Sprouting Broccoli. Hosing the ground, and carefully gathering-up all fallen fruit, and in other respects doing our utmost to keep the kitchen garden neat.

### PINERIES.

Queens, intended to produce fruit in May and June next year, have had all the suckers removed from them; they will not receive very much water at the roots with a dryish atmosphere and abundant ventilation. Of course the plants will not be what is commonly called dried-off, nor will the ventilation be so much that a greenhouse temperature would be produced; but at present the night temperature out of doors ranges between 55° and 60°, so that without artificial heat 65° as a minimum can easily be kept up. The suckers do not require any other artificial heat, except so much as may be obtained from the fermenting tan. The lights are closed early in the afternoon after the surface tan and walls of the house have been sprinkled with water. The young suckers are watered with caution until the roots have taken hold of the sides of the pots. A few plants of Charlotte Rothschild and Smooth-leaved Cayenne are swelling in the fruiting house. It is not convenient to remove those plants that have not yet thrown up, but if it could be done a treatment similar to that of the Queens would be desirable, the plants would then throw up in winter and fruit early for next season. Cutting over those plants that miss has been tried, but this is not always satisfactory; it answers sometimes when the tops can be plunged in a brick bottom heat, and extra attention be given to watering them.

### ORCHARD HOUSE.

All sorts of fruit are plentiful this season, but so far the flavour is not satisfactory, and amongst the early varieties split stones are not uncommon. Royal George Peach is now coming in, and the fruit of this is of large size and fair quality. In a few days Bellegarde, Violette Hâtive, Grosse Mignonne, and all other mid-season sorts will be plentiful. Hunt's Tawny Nectarine we have not grown in the house this year; it will not pass for flavour, but it is a certain cropper, and the fruit

when well grown has a fine appearance. It is very subject to mildew, so that it will probably not be grown again. Rivers's Lord Napier has again proved itself to be a sterling variety; the fruit is quite as large as Elruge, and it comes in a few days later than Hunt's Tawny. Stanwick Elruge, although it has not much of the Stanwick about it in appearance, is distinct and very good; it ripens with Elruge, and is also coming in. It is now necessary to withhold syringing altogether, and to admit air freely night and day.

#### PLANT STOVE AND ORCHID HOUSES.

The stove is being thoroughly cleaned-out and repainted. To do this it is necessary to remove all the plants to another house, in order that the woodwork may become dry before the paint is laid on. It is very little use painting a house at all if there is any wet in the wood, the paint prevents the moisture from getting out as effectually as it excludes it. Indeed it is a question whether paint is of any use to preserve the wood when a very high moist atmosphere is required. It certainly saves it from splitting by the sun; but decay is not arrested in places that are continually wet. If any substance could be invented that would exclude wet from the wood it would be a great boon to Orchid-growers and cultivators of exotic plants.

Insect pests increase very rapidly at this season, and should be carefully watched, else irretrievable mischief is done in a day or two. We have been much pestered with thrips on the Orchids this season, and it has required much care and perseverance to destroy them. They have attacked Cattleyas and Dendrobiums principally on the young growths. They hide quite in the centre of the growths, where they cannot be sponged-out. Even after being washed-out two or three times a week they still continue to appear. Persistent washing, however, ultimately destroys them. We use rain water and soft soap only. Fumigating with tobacco smoke destroys thrips, but it is very dangerous to use it in Orchid houses when the plants are making their growth, and at that time the insect does most mischief. It is well to fumigate freely during the winter months, or late in autumn after the growths are formed. White scale is also a very troublesome pest, and does much injury to Cattleyas, Lælias, and other Orchids that have the pseudobulbs covered with a thin skin fitting closely to the bark. The scale works between this skin and the bark, and cannot be destroyed until the covering is removed. Where the insects can be reached they are easily destroyed with soapy water. This insect is imported from the Brazils and other tropical countries with the Orchids. Red spider ought also to be mentioned, as it often does much damage to the young growths before it is observed. Many of the smaller Dendrobiums suffer from its attacks; if the plants are syringed daily this will hold it in check.

In the cool Orchid house the difficulty is to keep down the temperature without shading too closely. Our house is a small span-roof well exposed to the sun. A house of this character does very well in winter when all the light and sun possible is not too much. But if only one house is to be available for this class of plants, let it be a span-roof on a wall facing north. Odontoglossums adapted for the cool house are seldom attacked by insect pests. Green fly will make its appearance on the flower spikes and spoil the appearance of them, but it can be easily removed with a small brush.

#### FLOWER GARDEN.

The *Gladiolus* beds are in full beauty now—at least our own seedlings that have not previously flowered. The named varieties that have been purchased at considerable expense at different times during the last eight or nine years are very poor indeed, and the longer the roots are grown in our ground the worse they become; whether a change of soil would restore the leaves to a healthy green has not yet been decided, possibly it might. Many growers of this fine autumn flower complain of the unhealthy growth this year. We have been placing sticks to the spikes as they advance in growth. The heavy rainfall has saved us much labour in watering.

Hollyhocks we have not grown since the disease has become so prevalent. Sulphur will destroy the parasitical fungus that attacks the leaves. The spikes ought to be fastened to the sticks as they advance, and all decaying flowers be removed. The growths of Dahlias ought also to be trained to their supports; they are easily broken over at the neck with high winds. The same may be said of Phloxes and Pentstemons. How seldom one sees a collection of either in a private garden; but nothing can be better for decorative purposes in autumn, and they are so easily cultivated. The spikes must be tied to sticks as they advance. Late cuttings will just now be coming into flower.

Those who have still Carnations and Picotees to layer should see that the loam used is free from wireworms. A few of them had not been observed in the loam we used for ours, and they have burrowed into the centre of the stem where the notch was made and destroyed a number of our best plants. It is well always to layer more plants than will actually be required in case of accidents. In a few days we shall be busy putting in cuttings of zonal Pelargoniums, beginning with the Gold Tri-

colors, and getting in all the shy-growing sorts first. Verbenas and Calceolarias of the shrubby section delight in a dripping season, consequently they have made good growth this year. Roses that were budded two or three weeks ago have been looked over and the fastenings loosened. Placing sticks to Arsters, hoeing and weeding flower beds and borders, have occupied a portion of our time.—J. DOUGLAS.

#### TRADE CATALOGUES RECEIVED.

JAMES CARTER & Co., 237, High Holborn.—*Catalogue of Dutch Flower Roots, &c.*

W. CUTBUSH & SONS, The Nurseries, Highgate, London.—*Descriptive Bulb Catalogue.*

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

BASTYBURN—In the Devonshire Park.—August 19th. H. A. E. Samsell, Esq., 30, Hyde Gardens, Sec.

GLASTONBURY.—August 19th. Rev. E. Handley, Hon.-Sec.

PONTPOOL.—August 19th. Mr. Ernest Deacon, Hon.-Sec.

ULVERSTON.—August 20th. Mr. Geo. Higham, Hon.-Sec.

CONYNGHAM.—August 24th. Mr. Jas. Dickson, Hon. Sec.

HARTLEPOOL.—August 24th. Mr. Connellor H. Magor, Hon.-Sec.

NEWBURY.—August 24th. Mr. H. Seymour, Hon.-Sec.

ALEXANDRA PALACE.—Metropolitan Society's Autumn Exhibition, August 24th and 25th. Rev. H. H. Dombrain, Westwell, Ashford, Kent. Hon.-Sec.

BURTON-ON-TRENT.—August 25th. Mr. W. Shave, Sec.

ISLE OF THANET (ST. PETERS).—August 25th.

RAMSGATE.—August 25th. G. D. Smith, Esq., 8, Marine Terrace, Ramsgate, Hon.-Sec.

DUNDEE.—August 26th, 27th, and 28th. Mr. R. McKelvie, 51, Reform Street, Sec.

WAKEFIELD.—August 26th. Mr. A. Holmes (Parish Clerk), Sec.

CHIPPENHAM.—August 31st. Mr. Alfred Wright, Sec.

DEAL AND WALKER.—August 31st.

BATH.—September 1st and 2nd. Mr. B. Benson, 12, Wilton Street, Sec.

GREAT YARMOUTH.—September 2nd. Mr. S. Aldred, Hon.-Sec.

NOTON AND WHITWELL.—September 2nd. Mr. E. W. Berry, Hon.-Sec.

ALEXANDRA PALACE (International Fruit Show).—September 2nd, 3rd, and 4th. Mr. A. McKenna, Sec.

SOUTH OF SCOTLAND.—To be held at Dumfries, September 2nd. Mr. J. Bloom Dirriddle, 11, Buchanan Street, Dumfries, Hon.-Sec.

CENTRAL PALACE COMPANY.—Autumn Fruit and Flower Show, September 7th to 9th—Sec., F. W. Wilson. Boes and their appliances, September 11st to 13rd—Sec., J. Hunter.

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

NAMING FRUIT.—Our chief authority being away, fruit had better not be sent until a fortnight hence.

ADDRESS (Col. Milman).—The address of the Company is 21, Whitehall Place, London, E.W.

EARLY VERMONT AND LATE ROSE POTATOES.—J. Bates has these growing in his garden, and the tubers are so alike that he cannot tell one from the other. He wishes to know if they are different names for the same variety.

POTATO FAULTS (P. M. R.).—Your American varieties were destroyed by the soil or "new disease" to which they are liable. Dig in the maize manure at planting time next year. Do not add any other manure. Grow only Ash-leaved Kidney and Magd's Prolific, and take up the crop in July.

WINTERING ZONAL PELARGONIUMS (E. L.).—You may winter your plants in the frames from which frost is excluded by hot-water pipes, but we advise that the plants be potted. If planted out as you suggest there would not only be a greater liability of the plants being injured by damp, but a check would be given them at planting time, for this class of plants do not transplant well. In wintering you may trim-in any straggling shoots to make the plants compact and shapely, and remove entirely all the large leaves. This will admit air to the stems and render them less liable to be injured by damp, and will also afford more room. The plants may be as closely together as possible, providing the air can circulate freely amongst them. The number which you can accommodate will depend on the size of the plants. If you like to try the experiment of planting them out, put in 6 inches of soil and make it very firm, and keep it dry on the surface; but we strongly advise that the plants be potted, and in the end both time and plants will be saved. An important point to attend to is that the plants be taken up before they are in the slightest degree injured by frost.

MILDREW ON ROSES (J. L. R.).—The usual scourge—orange fungus and black mildew, owing to a sudden check in the growth, are on your Rose trees. Send us further particulars as to soil, situation, treatment, &c. Syringing with clear soot water, and dusting with flowers of sulphur, with liberal treatment of liquid manure in summer, and mauling with manure in winter, are the best remedies. If the growth in 1874 was such as you describe it, the trees will recover.

EGONARFUS GLOBULUS (Saxen).—The specimen sent us has the appearance of having been excessively watered, the stem being thereby destroyed. These plants in a young state are impatient of water overhead. Avoid watering on the stems, and use soil less rich.

**LILUM GIGANTEUM (L. B.).**—You will require to pot and grow on any offsets or young plants which arise around the parent, and under good treatment—i.e., shifting into larger pots as they fill with roots, and keeping well supplied with water during growth, affording them greenhouse treatment, they will flower before or by 1878.

**DOE ROSE STOCKS FROM STOOMS (Idem).**—The stocks will after a year's growth be available for taking up, and allowing about 4 inches of root stem to each they may be planted, and cut down to about 4 inches of the soil, and the following season they may be budded at or near the surface. Excepting in very strong soil Manetti stocks are far preferable to Briars for dwarf plants.

**ROSE LEAVES MILDREDD (H. G.).**—The dark parasitical fungus on the leaves may be prevented by copious waterings of the roots, and mauling the surface over them. Do so now, and give repeated syringings of the leaves, dusting them with flowers of sulphur after each syringing.

**GOLDEN-LEAVED PELARGONIUMS (O. L.).**—Golden Banner, Crystal Palace Gem, Pillar of Gold, and Cloth of Gold: Gold and Bronze are—Christina, Harold, Mrs. Harrison, Wain, and Prima Donna.

**LARGE-LEAVED HOLLY (Bac to Urbe).**—We think it is an extra-vigorous form of that truly noble variety, *Ilex aquifolium mobilis*, which is of vigorous growth, having a very fine appearance.

**ADRIOLA ORNAMENTA (Afred).**—As your *Adriolas* were reported in May, it would be better to leave any offsets on until the spring, and when you top-dress them if they are then rooted take them off, in the meantime taking care to have the earth well round the collar of the plant, so as to induce them to throw out roots. For the same reason leave the double plant of Colonial Taylor until the spring.

**VINES ATTACKED BY MILDREDD (H. G. A.).**—In your case we do not think you have anything to fear, only persist in the use of the sulphur whenever and wherever the mildew appears. In winter dress the vines thoroughly with 1 lb. of soft soap to a gallon of tobacco juice brought to the consistency of pebbly adding flowers of sulphur, and apply with a brush, taking care not to injure the eyes.

**GRAPES SHRIVELLING (A Subscriber).**—Whether the Grapes are shrank or the border is dry. In the former case the foot-stalks of the berries, also some of the main stems of the shoulders or other parts of the bunches, will be dried and become brown in colour, having a wire-like appearance, and the berries so affected are devoid of flavour even if the shanking did not occur until the berries are far advanced in ripening; and if it takes place when the Grapes are changing colour the shanked berries are sour. If it arises from overdryness of the border that may be obviated by keeping it more moist; but we apprehend the border has been all along too dry, preventing the Grapes attaining a good size and ripening off fully. The filling of the house with bedding or other plants is against the keeping of Grapes, as from the moisture resulting from watering the plants damping of the berries takes place, which is difficult to dispel in dull wet weather. The house may, however, be cleared of the Grapes when the leaves have fallen, cutting the bunches with a few joints of wood and placing them in bottles of water in a dry place, a few pieces of charcoal being placed in the bottles to keep the water sweet.

**VINES UNWATERED (E. F.).**—The leaves you sent us show the lower part of the shoots to be weak, and the upper part too vigorous, which is due in a great measure to the richness of the border; and the weakness at the lower part of the canes we think due to the border, from the waterproof covering, being dry, and the growth in the early stages weak. We presume you stop the side shoots at the sixth leaf, and stop the laterals at the first leaf, and the subsequent growth also at the first leaf. The laterals upon the cane you will have stopped at the first leaf, and subsequent growths keep closely stopped to one leaf. If this has not been done do it at once, and treat the vines now as if you were ripening-off a late crop of Grapes—i.e., leave a little air on at night, an opening at each light of about 8 inches, and with this air on have the night temperature 65°, by day 70° to 75° without sun, admit more air at 75°, having it fall when the temperature is 80° to 85°, and commence reducing it at 80°, closing at 75°, but leaving on the night air previously named. Continue this until the wood is quite brown and hard; this ought to be the case in a month, then lower the temperature 5° in each week after from fire heat, admitting air fully. The waterproof covering for the border may be all very well when you have Grapes, but the border may, when the vines are at rest, be too dry. In your case we should only cover the border in November with about 9 inches thickness of stable litter, and leave this on until the close of March or early in April, then remove all the littery part, and point-in what remains with a fork, not going so deep as to disturb the roots. In pruning, which do so soon as all the leaves have fallen, cut every other shoot to two, and the others to four eyes, and the cane cut back to one-third its length. Depress the rods in spring when the buds commence to swell. Upon the shoot which is cut to four eyes take one near its base for fruit bearing the year following, and from one or other of those above it you will certainly have fruit. Leave one shoot of those showing fruit as well as the one at its base, rubbing off the others, stopping the one at the base at the sixth leaf, and the other one joint beyond the bunch. Those cut-in to two eyes you know how to treat; and it is only for us to say that the upper shoot carrying fruit is to be cut away to the shoot next below it, thus giving you wood for next year's bearing, much nearer home than was the one removed. Keep the house cool in winter, not higher than 45° from fire heat, and the nearer it is to 40° the better.

**PLANTING VINES (A. M. B.).**—The vines should not be less than 8 feet 6 inches apart, which will give you ten vines for the length, five in each house. In the earliest house we should have two *MIL Hill* Hamburgh and one each of *Black Hamburgh*, *Duke of Buccleuch*, and *Foster's Seedling*. For the second house two *Muscat of Alexandria* and one each of *Madresfield Court*, *Mrs. Pine*, and *Lady Downe's Seedling*. The *Black Muscat* requires more heat to ripen it perfectly than *Black Hamburgh*; it ought to have the same heat as the *White Muscat*. Cane of a fruiting cane may be planted, but they ought not to be allowed to carry more than two or three bunches the first year. We prefer good-sized canes, and not allow them to carry any fruit the first season. Good canes of either description may be had of any of the principal nurserymen advertising in our columns. We cannot recommend dealers. It is a mistake to have only an outside border. The vines ought to be planted inside, having a border where it is only 8 or 4 feet in width; and to allow of the roots passing outside, the front wall should have openings about 2 feet wide, with a 14-inch pillar between, and washed over. The border should be the same in width as the rafters are in length, and the depth 3 feet 9 inches, 9 inches of which should be drainage, there being drains below the drainage to carry off the water, which should have a proper fall and outlet. The soil most suitable is the top 8 inches of a pasture taken off with its turf and chopped up in pieces 8 or 4 inches square, the soil being light rather

than heavy loam. Of this six parts, two parts old mortar rubbish, and one part each charcoal and half-inch bones, the whole to be well mixed together.

**FRUIT TREES (Robie).**—It would be all very well to procure a number of each kind of tree you propose cultivating, prove them, and propagate such as you find answer your purpose, had there been no previous workers in the same field, and by their experience able to give the information you are told to ferret out for yourself. There is no necessity for the procedure you are recommended to pursue, and we do not advise you to do so. If you wish for standard or large-growing trees, and have room for them, and are in no hurry to partake of the fruit, you may raise a stock of Apples and Pears from pipe, and Cherries, also Plums, from the stone; but if you want to keep them within reasonable bounds, and to have them to fruit early, they must not be upon the free stock, but the Apple upon the *Paradise*, *Pear* on *Quince*, and *Cherry* on *Mahaleb*. If you want large trees they may be upon the free stock, and the mode you propose of propagating them will answer, planting out the seedlings when a year old, and budding or grafting them when strong. We name a few of each kind of fruit suitable for garden as pyramids, bushes, or espaliers on the dwarf stock. *Apples*—*Dessert*: Early Red Margaret, Red Astrachan, Kerry Pippin, Margil, Cox's Orange Pippin, Ribston Pippin, Marmington Pearmain, Old Nonpareil, Syke House Russet, Kiddlestone Pippin, Malon, and Sturmer Pippin. *Kitchen Apples*: Keswick Codlin, Lord Suffield, Cox's Pomona, Blenheim Pippin, New Hawthornden, Mère de Ménage, Bedfordshire Foundling, Small's Admirable, Damsel's Seedling, Betty Gesson, Rymer, Warner's King, and Gooseberry Apple. *Pears*: Summer Doyenné, Beurré Giffard, Beurré de l'Assomption, Williams's Bon Chrétien, Beurré Superfin, Louise Bonne de Jersey, Doyenné Gris, Doyenné du Comice, Beurré Diel, Beurré d'Arenberg, and Bergamotte Espéren; Jargonelle and Marie Louise doing well upon the free or Pear stock. *Plums*—*Dessert*: Early Green Gage, De Montfort, Gullin's Golden Gage, Green Gage, Kirke's, Jefferson's, Transparent Gage, Guthrie's Late Green. *Kitchens*: Early Frolia, Belgian Purple, Prince Englebert, Victoria, Mitchellson's, Diamond, Autumn Compôte, and Belle de Septembre. *Cherries*: Empress Eugénie, May Duke, Royal Duke, Belle de Choisy, Garnation, Kentish, Elaine Horsens, Late Duke, and Morello.

**PRUNING LORD SUFFIELD APPLE (C. W. D.).**—Cut back at once the main shoots or the continuation of the main branches to 10 inches just above a leaf; the main shoot or leader to 12 or 13 inches. If you require to form new branches these should not be nearer to each other or those existing than 1 foot; and stop, or in your case cut all the others back to three leaves, and afterwards stop to one leaf, so that growth may result. It will admit light and air to the fruit and spurs; upon the maturing of the latter you will be dependant for future produce. If any overcroding has resulted by the neglect to which the trees have been subject, thin-out the crowded parts at the winter pruning, and attend to stopping earlier another season.

**NECTARINES CRACKING (A. B. C.).**—The air in your orchard house is probably too dry. The skin of the fruit does not expand sufficiently fast to contain the flesh of the fruit as it increases in growth.

**CHERRY SHOOTS BLIGHTED (L. J. K.).**—The shoot sent is covered with a black fungus, a result of the attack, at an earlier stage, of black aphid, which might have been destroyed by dipping the shoots in tobacco water. Shorten the shoots, cutting away as much as possible the infested parts, and take prompt steps another season to prevent a recurrence of the mischief.

**MELON WITH MALE FLOWERS ONLY (Rev. S. A. B.).**—As a rule the male precedes the female flowers by several days, the former appearing upon the main shoots, whilst the female are for the most part borne by the side shoots at the first and second joints. If there be no female flowers upon the side shoots they being male flowers, the plants are in much too loose soil, and the growth is very free and long-jointed. We think, however, your plants are late, and that you will in a few days have female as well as the present and other male flowers. The present season has been a very trying one for Melon growers with only indifferent means of affording artificial heat.

**NO QUONUM IN A COLLECTION OF VEGETABLES (T. J. H.).**—We know of no reason why it should not be so exhibited. It is a culinary vegetable.

**SALINE MANURE FOR POTATOES (C. R. Goddaling).**—We should dig in the manure at planting time.

**NAMES OF FRUITS (T. F.).**—Beurré Giffard. (*A Connaught Subscriber*).—No. 2 appears to be Nectarine Plum. 1 was smashed. We cannot undertake to name Plums without a shoot and leaves accompanying the fruit.

**NAMES OF PLANTS (O. O.).**—*Veratrum viride*, L. (*Rev. Denis Moore*).—One of the American species of *Crotalaria*. (*An Amateur*).—1, *Polypodium vulgare*, var. *cambriacum*; 2, *Fellina rotundifolia*; 3, *Sceloporus vulgaris*, var. *crescens*; 4, *Ditro*, var. *multifidum*; 5, *Ditro*, var. *angustifolius*; 4, *Polystichum angulare*, var. We only name six specimens at one time. (*A. J.*).—1, Too withered; 2, 3, and 4, Merely bits of spray and leaves.

## POLTRY, BEE, AND PIGEON CHRONICLE.

### CATALOGUES.

We do not think secretaries and poultry-show officials pay as much attention to the catalogue department of our shows as they should do. Loud and frequent are the complaints we have about the non-arrival of catalogues on the proper day, and often of their never appearing at all. We have had two letters from gentlemen this week. One living in Kent writes word, "Do say something in our Journal about catalogues. The system gets worse and worse. I wrote and asked the Secretary of the M— Show last week for a catalogue, and begged him to send it by return for an especial reason, and it never came to hand for five days, and the report and prize list had then appeared in the papers." We take also an extract from the other letter. "Please, if you attend S— Show send me a catalogue, for I have given up writing to the shows for them, as they either send them too late to be of any use, or bag the stamps *in toto*."

Now these things should not be, for really to the great body of exhibitors who do not attend the shows, and who send their birds on as parcels, a catalogue is of the greatest possible service and importance. We really do hope something will be done to



remedy this growing evil. If the secretary or one of his myrmidons cannot personally see to the dispatch of the catalogues by the first post, let the printer or someone else do it, and the fact stated in the schedule; stamps could then be sent to this vendor, and he would be responsible for the dispatch of the catalogues. We know from experience that it needs a superhuman effort almost on the first day of a large show to see to the catalogues; but the matter being really so important, we do hope secretaries will try somehow to send them, or else, as we said, appoint some other responsible person to do it, and so stop the great inconvenience to exhibitors and consequent annoyance to everyone connected with the show. We know, of course, full well some do send the catalogues off at the proper time, and many of those from large and important shows; so, surely what one can do all can do. We always make a note of the exhibition which sends its catalogues and prize list regularly, and for regularity in doing so for the last five years we give the palm to Aylesbury, Royal Counties Association, and Northampton. We do not intend to be invidious in naming these, for doubtless there are many exhibitions with which we have had nothing to do have kept their faith as far as catalogues go with exhibitors, but those three shows named above have, so far as we are personally concerned, been the most regular during the past five seasons.

Then as to the printing of the awards in the margin of the catalogue in the line with the exhibits; we do not hesitate to say we would gladly give 8d. each, or even 6d. more for every catalogue so printed. We know it cannot always be managed, but when it can be possibly we do hope no effort will be spared to manage it. We are sure gladly would exhibitors and purchasers give 8d. or 4d. more to have them so. When this cannot be done anyhow, then the next best way is to have a list printed of the winners' names and inserted in the catalogue, so that the names of the prizewinners and those getting commendations can easily be seen. The slovenly way of merely printing a list of numbers on a sheet of paper is horrible in the extreme, and we cannot say too much against it. The numbers, too, are so often wrong, as of course it is much easier for mistakes to occur among a list of numbers than when we have the names in full; but apart from this, to have to find first the number and then search it out in the catalogue is worrying and tiresome.

There is, however, one thing worse in connection with catalogues which we have often experienced; we allude to the system of sending catalogues with no awards at all. This is especially done at the one-day northern shows, and is positively intolerable. Whatever use can secretaries imagine a catalogue without awards is to a person at a distance? and yet time after time from Lancashire, Yorkshire, and even the more midland shows we have had them. Surely if the show funds do not allow of a prize list to be printed, or there is no time for doing it, the secretaries or officials should have the sense to mark at least the awards in the classes their patrons from a distance are interested in, and not send them a catalogue which makes them no wiser than they were before. Even if the local paper, which always somehow crops up on the evening of the show day, was sent, it would be much more useful than an empty catalogue. We hope we may never have to allude to this again, and that this ridiculous plan may at once be discontinued.

Next one word as to the quality and price of a catalogue. We said above we would gladly pay more to make the dispatch of a catalogue by a fixed post certain, or to have the awards printed in the margin, and so we would; but when this is not done we think 6d. an ample sum for a catalogue of a moderate-sized show, especially as some—e.g., St. Austell, Oundle, &c., only charge 8d. and 4d. The Palace, Manchester, and those large exhibitions who get up the whole thing well are, we consider, warranted to charge 1s.; but a catalogue we had last winter from Kendal certainly was the dearest shilling's worth we ever had in the catalogue way.

Talking of the price of catalogues reminds us of an incident which happened this year at the Bath and West of England Meeting at Croydon, which we may as well set our readers on guard against. We got out at Waddon station, and immediately saw a man with a pile of catalogues on sale. "How much?" we cried. "One shilling each," answered the man, and we bought the book and went to the Show. When we got there we saw the catalogues selling at 6d. each, the price being plainly printed on each wrapper. We looked at ours, and lo and behold the "price sixpence" had been beautifully erased and no signs of it left. We sorrowfully wondered how many sixpences the man made by his dodge.

Then one word about the A and B entries—e.g., 9A or 9B, and so on. These should never be used if possible, for beyond showing the entries have been slovenly kept, or that entries have been received beyond the proper time, they often are the cause of much confusion and annoyance, for the pen man comes, erects his pens and numbers them, and the birds arrive. Presently, say, 9A comes in; pen 9, and next to it pen 10 are found, but 9A appeareth not. Then a pen is erected in some out-of-the-way corner, hastily numbered 9A, and the contents of the

basket put in, or, perhaps, they are placed in some empty pen where the proper inhabitants have not turned up. The Judge comes round and judges, and not seeing 9A they get *nil*, and yet, may be, are the best birds in the class; while the unhappy owner at home, knowing not the reason, uses unpleasant words about the Judge which passed over his birds, which perhaps, too, are champion winners. This is not always the case, but we have known it happen more than once, and it must be guarded against.

Perhaps some will consider this a long article on a very trifling subject. We think otherwise, for we are certain that nothing connected with our shows wants attention more than the present system of the dispatch of catalogues; and, moreover, that there is nothing so valued by the majority of exhibitors as a well-got-up catalogue with clearly-printed prize list arriving by first possible post after the awards are made. Having said thus much, we leave the matter in the hands of the secretaries, and do hope the present season may be marked by an improvement in this respect; so that as we called last year the "triumph of the double baskets," so this year may be known as the one chronicling the improvement in the catalogue arrangements of our shows.—W.

### "BLACKS" IN FOWLS.

A few years ago the north of England was noted for its cock fights, mains being fought on all public occasions. Speaking to an old "pitter" the other day, he remarked that one-half of the diseases to which fowls are now subject would be avoided if the owners would but resort to a remedy which, in his young days, was about the only one used when the birds were noticed to be unhealthy. For what is locally known here as "blacks" in birds no other specific has been found so salutary. Take a little rue fresh from the plant, pound it, and mix into a pill with soot, open the bill of the bird, and shove it into the crop. If given occasionally when the birds are in ordinary health it is a capital preventive of disease.—BETA.

### MANCHESTER AND LIVERPOOL POULTRY SHOW.

This was held at Preston, August 10th, 11th, and 12th. The chickens were unusually good.

In *Dorkings* first and third were good pairs of large build and good in claws, second a fine cockerel, as was the same owner's unnoticed birds. This was a capital class. In *Spanish* the winners were a very old-looking pair, and it was the general opinion that they could not possibly be birds of 1875; second were good though coarse; third a nice neat pen of promise; the remainder also good. In *Buff Cochins* the winners were superb, the pullets especially being grand in size, colour, and shape; third a grand pullet, and a nice cock not so good in colour. Partridge were more numerous. First, a fine cockerel of good colour, the pullet was a real gem of splendid quality; third not so nice a pullet, but a very Cochins-like cockerel of great merit; second were a nice pair but hardly so perfect as the others. Dark *Brahmas* were good, though, perhaps, not so perfect as last year. First and second cockerels were beautiful in colour, but a little wanting in symmetry. Third cockerel too heavy in leg feather; pullets all nice. Light *Brahmas* were very moderate, and a poor entry. *Games* were poor throughout, the only pens deserving notice being the first Brown Reds and the first yellow-leg Piles; both pairs being good in colour, head, and shape. *Hamburgs* were certainly a grand lot, and the competition severe. In *Golden-pencils*, first went to a pair, the cockerel rather a plain bird, but the pullet one of those beauties which come out so seldom; second a neat pair, the cockerel light in colour, both good otherwise; third a moderate cockerel and a fair pullet. Some of the other pens contained one good bird. *Silver-pencils* were a grand lot; first and second showy in tail and neat in head, but inclining to be yellow; third a grand tail and nice colour, but the cockerel too full of marking. Mr. Beldon's were two capital pairs. In *Golden-spangles* the first and second were capital in colour and marking; third too patchy in spangling and lacing, and the cock rather light. In *Silver-spangles* the first cockerel was not our fancy, a fine bird, but plain pullet very finely spangled in the body; second was a beautiful cockerel too dark in the neck, but splendidly marked, pullet good; third a fair cockerel, but pullet light in neck. Mr. Fielding's pair were the best throughout, but the cockerel too light in his legs for the Judge. In *Blacks*, first a capital cockerel indeed, but the pullet minus any point but ears, which were good; second and third were capital all round, and must have been close upon the first. In *Poles* first and third were fair White-crested; second, *Golden-spangled* of great merit, but the pullet was rather high in the back or they must have won. In *French* first went to Houdans, the pullet a beauty, but the cockerel decidedly poor; second were *Oréves*, the cockerel also very poor, and the pullet though good in size was poor in crest;







**TURKISH.**—J. G. Richardson, Rochdale. 2. H. Crabtree, Rochdale.  
**JACK-BIRDS.**—J. J. Richmond, Brockdale, Oswaldtwistle. 2. G. Richardson.  
**FANTAILS.**—1 and 2. R. H. Ashton.  
**OWLS.**—1, R. O. Fielding, Rochdale. 2. S. Dronfield.  
**NUSS.**—1 and 2. J. Richmond.  
**FRACOONS.**—1, R. Woods, Mansfield. 2. S. Dronfield.  
**TRUMPETERS.**—1 and 2. W. Harvey.  
**ANY OTHER VARIETY.**—1, J. Richmond. 2. W. Harvey.  
**TURKISH.**—Almond.—1, A. & W. H. Silvester, Sheffield. 2. W. Harvey.  
**Balds or Beards.**—1, R. O. Fielding. 2. R. White, Manchester. Any other variety.—1, A. & W. H. Silvester. 2. R. H. Ashton.

**BRAHMAS.**—Long-faced.—1, Grindley & Lees, Middleton. Short-faced.—2. W. Harvey.

#### RABBITS.

**SPANISH.**—1, R. Barrett, Manchester. 2. P. T. Hopley, Oldham.  
**ANGORA.**—1, R. H. Swain, Haywood. 2. J. Golder, Westgate, Bradford. 3. Buckley, Hasley, Rochdale; 4. S. Butterworth, Rochdale.  
**HIMALAYAN.**—1, S. Butterworth. 2. R. Barrett. 3. J. Butterworth; 4. G. Mitchell, Fairfield, Liverpool.  
**ANY OTHER VARIETY.**—1 and 2. T. Schofield, jun., Chesham, Manchester. 3. S. Butterworth.

**Judges for Poultry, Cats, and Rabbits, Messrs. Hutton, Fielding, and Smith. For Pigeons, Messrs. Ridpath and Justice.**

### MALMESBURY SHOW OF POULTRY, &c.

This was held on the 18th inst.

**DORKINGS.**—1, H. Feast, Swansea. 2. G. Hanks, Malmesbury.  
**SPANISH.**—1, H. Feast, Swansea. 2. E. Winwood, Worcester. 3. H. Feast. 4. G. Hanks.  
**GAME.**—Black-breasted Red.—1, E. G. Goddard, Stroud. 2. E. F. Woodman, Cirencester. Any other colour.—1, E. Winwood. 2. H. Feast. 3. G. Hanks; 4. E. F. Woodman.  
**BRAHMAS.**—Dark.—1, J. S. Maggs, Tetbury. 2. H. Feast. Light.—1 and 2, T. A. Dean, Hereford. 3. J. S. Maggs; 4. Col. Miles, Malmesbury. 5. H. Feast.  
**COCHINS.**—1, Mrs. Allcock. 2. E. Tomlinson, Birmingham. 3. H. Feast.  
**TRUMPETERS.**—1, J. Carr, Swansea. 2. H. Thompson, Highworth. 3. H. Feast.  
**ANY OTHER VARIETY.**—1, J. Hinton, Worcester. 2. Rev. E. J. Bidley, Newbury. 3. J. Crooke, Bridgewater; 4. J. S. Maggs; 5. H. Feast.  
**ANY VARIETY.**—Cock.—1, E. Winwood. 2. H. Haddrell. 3. J. S. Maggs.  
**BANTAMS.**—Game.—1, J. Mayo, Gloucester. 2. H. Feast. Any other variety.—1, D. C. Wingfield, Worcester. 2. H. C. Holloway. 3. M. Yardley, Birmingham; 4. C. Lewis, Charlton; 5. Mayo.  
**SELLING CLASS.**—1, J. Carr. 2. J. S. Maggs. 3. B. Robins, Malmesbury; 4. Mrs. Allcock; 5. J. S. Maggs.  
**DUCKS.**—Brown.—1, J. S. Maggs. 2. G. Hanks. 3. J. S. Maggs; 4. H. C. Holloway. 5. J. S. Maggs. 6. G. Hanks. Any other variety.—1, J. E. Kelleway, Isle of Wight. 2. Lady V. Howard, Chesham Park. 3. H. Yardley, Birmingham.  
**Geese.**—1, G. Hanks. 2. A. M. Murphy, Cirencester. 3. W. Kent.

#### PIGEONS.

**CARRIERS.**—1, P. E. Spencer, Bedford. 2 and 3, T. Jones, Malmesbury.  
**COCK.**—1, P. E. Spencer. 2. H. Yardley.  
**POULTRY.**—1, P. E. Spencer. 2. Mrs. Haines, Charlton. Cock.—1, H. Yardley.  
**2, P. E. Spencer. 3. Mrs. Haines; 4. J. S. Maggs.**  
**TURKISH.**—1, H. Yardley. 2. J. S. Maggs. 3. W. J. Hamner, Cirencester; 4. J. S. Maggs.  
**ANTWERP.**—1, H. Yardley. 2. J. S. Maggs. 3. A. J. Barnes, Gloucester; 4. Blackford.  
**JACOUB.**—1, H. Yardley. 2. C. Lewis.  
**FAVORITE.**—1, P. E. Spencer. 2. A. J. Barnes. 3. Dr. Kinnier.  
**ANY VARIETY.**—1, P. E. Spencer. 2. H. Yardley. 3. H. Haddrell (5); 4. C. Lewis; 5. G. Prestice, Cirencester; 6. J. S. Maggs; 7. Jones. 8. J. S. Maggs; 9. P. E. Spencer.

#### RABBITS.

**LOP-EAR.**—1, S. Hinder, Cradwell. 2. A. M. Murphy. 3. A. M. Murphy; 4. F. Butler, Tetbury; 5. E. M. Howard, Charlton Park; 6. Arthur, Devizes; 7. C. M. Bartlett, Bath. 8. C. E. Bartlett.  
**HIMALAYAN.**—1, H. C. Holloway. 2. G. Prestice. 3. A. M. Murphy. 4. W. P. Mathews, Cirencester; 5. C. Arthur (3).  
**SELLING CLASS.**—1, A. M. Murphy. 2. C. E. Bartlett. 3. W. Chapman, Cirencester.  
**ANY VARIETY.**—1 and 2, C. Arthur. 3. Dr. Kinnier.

### IBLE POULTRY SHOW.

Two seasons have elapsed since a show was held at Idle, and previous to this the annual meeting had attained a fair stand among the events of this part of Yorkshire; but through the irregularities of some in connection with the management the Show was given up, but this season has been established fortunately in good hands, so that we think a good future is in store for the Society. The cricket field was well chosen for the purpose, and pens on Turner's principle were used, but no tent provided, the pens being placed in a square in the centre of the field, but fortunately the weather was fine, else the birds must have suffered from the exposure. The entries were not as large as would have been the case had it not been for the occurrence of other shows, especially the one at Oldham, those for poultry being ninety, and for Pigeons eighty-four—a result we must after all confess was a great disappointment to us. The whole was well managed, and the number of visitors very good.

**Spanish** were very good, and all old birds. **Game** had four pens, the first Black, and second Brown Reds; Mr. Mason's highly commended pen of Black Reds very good. **Cochins**, one pen of Buffs. **Brahmas**, first Dark and second Light. **Hamburghs** not numerous but good. In Gold-spangles the awards were reversed from the Great Horton Show, and the timepiece awarded here. In Game **Bantams** first were Piles and second Black-breasted Reds; and in the Variety Blacks won, the first very small. Gold and Silver **Polands** won in the Variety for large fowls. In Game cock chickens Brown Reds won, and these were very promising birds; the pullets were also of this colour. In the following class Partridge were first and Buffs

second, but we should have reversed these awards. Pen 1, very highly commended, Whites. In chickens Hamburgs are not forward, and some time must elapse ere we can feel at all certain the quality is aught approaching previous years, though there were some good birds here.

**Pigeons** ran very good in some classes. Of Carriers there were no entries, and of Barbs only one. The winning Jacobins were Reds and good. Dragons only one pen. In Tumblers, Long-faced, first were Red and second Black Mottles, a good Black Bald highly commended. Turbites were an easy win for Miss Scanor, first with a Red and second Blue. English Owls were a fair class; first Blue and second Silver. Antwerps were a great disappointment in numbers, for in this locality large numbers are kept. The cup was given to a very handsome Short-faced Dan cock, the second in that class being also of that colour. Short-faced hens are not near the quality of cocks, although in colour no improvement can be effected. Long-faces were very good, and the winners well placed. Medium-faced were good, very good; in fact, we considered these the best of the Antwerp classes. The cup for Pigeons except Antwerps was won by a very pretty White Owl, the second in this class being a Black Pointer. In the Selling class Black Barbs were first and Blue Owls second.

**SPANISH.**—Black.—1, H. Bolton, Sturley. 2, J. Thresh, Bradford. 3, F. Bowdler, Thibis, Wotton.

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### BORNINGLOW POULTRY SHOW.

This was held on August 7th. The weather was most disastrous for this Show, which was a very pretty little affair, the quality of the birds being unusually good.

In **Dorkings** first was a fair old pair, second and third moderate. The winning **Cochins** were all good, the first richest in colour. In **Dark Brahmas** first was a good pair, second fair chickens; the rest poor, two pens being empty. In **Light Brahmas** first and second went to chickens, the first excellent in size and feather; third two old birds. In **Spanish** first were a capital pair of chickens. The first **Brown Red Game** cock was not in good trim. Duckwings were a much better lot, first going to capital old, and second to grand young birds. In **Spangled Hamburgs** first were plain Silvers, second Gold, cock good, but hen poor; third to grand Silver chickens. This was a capital class, and the third might easily have won. In **Pencils** first went to a grand pair of Silvers in excellent feather, second to first-rate Gold, and third to Silver chickens (since first at Preston), good Golden being highly commended. **Game Bantams** were a neat lot. First were rich and stylish, second a better pair we think, both Black Reds; third Piles of fair quality. Other than **Game Bantams** were fair; first fair Black, second pale Gold-laced, third the best pen in the class (Blacks). In the **Variety** class first went to neat Black **Hamburgh** chickens, second to old Blacks decidedly before them, and third to fair **Créves**, a better pen of **Houdans** being highly commended. There were a few pens of decent birds in the **Selling** class.

We would advise the Committee to add Pigeons another year; with a judicious prize list they should pay their way well.  
JUDGES.—Mr. Teebay.

### HETTON SHOW OF POULTRY, &c.

THE sixteenth annual Show was held in the Hetton Hall grounds on the 11th inst. No place we have had the pleasure of visiting in the county of Durham is equal to these grounds for the purposes of a show and gala; and though Hetton is comparatively isolated, yet the number of visitors is immense, and fortunately on the present occasion the weather was quite enjoyable. The prize list had been improved in value, but public notice not having been drawn to this fact, the entries were not greatly in advance of those of last year, the entries in all being 210. The pens were the substantial ones of the Society, which, however, it would be well to discard for those of more modern construction, which would occupy less room and present a more pleasing and uniform appearance.

There were two sections in poultry, one for old, and the other for young birds. In *Spanish* the hens were very good, and cocks moderate. *Dorkings* good; but *Cochins* uncommonly so. In *Brahmas* the hens were faulty, but cocks were well marked and shapely. In *Hamburgs* most of the winners were really good. In *Polish* first were a neat pair of White-crested Blacks, and second and third Silvers; the cocks in the latter very good. *Bantams* were a very good section, some of the Game being especially stylish and good. One pen in the old birds was disqualified, a pullet being shown as a hen. Blacks were first and second in the Variety class, and Nankins third. Many other pens noticed. *Ducks* were a rare section for quality; the first in Ronens and Aylesbury very large. In the Variety Pintails were first and second, and Teal third. In the Variety of poultry first were Houdans, second Black Hamburgs, third Orpingtons. In chickens there were no entries for *Spanish*; *Dorkings* good. In *Brahmas* first were Dark and second Light, good and well grown. In *Hamburgs* the Gold-pencils took the lead for both quantity and quality, these being good in all respects. The rest of the *Hamburgs* were but moderate. Game poor; but *Bantams* good in all sections; the first Black Reds in Game, and first Black Rose-combed, about perfect. Of *Polands* one pen. In the variety class *Cochins* won the prizes.

In *Pigeons* only the Pouters, Almond Tumblers, first-prize Jacobins, Dragons, and the winners in the Variety class were very good. In the latter class Silver Dun Antwerps and Ice Pigeons won the prizes.

*Rabbits* were in pairs, each having a division through the pen. The Lops were good; but the Variety class brought nothing of note, the winners being Silver-Greys, which will, however, be pretty good when out of the moult.

**SPANISH.**—Black.—1, T. P. Carver, Boroughbridge. 2, H. Dale, Old Ormsby. 3, S. Hylen, Washington.  
**DORKINGS.**—1, J. N. Lawson, Ryhope. 2, A. Buglass.  
**COCHINS.**—1, 2, and 3, G. H. Procter, Durham.  
**BRAHMAS.**—1, R. Moore, West Rainton. 2, T. P. Carver. 3, C. Venables, Castle Eden.  
**HAMBURG.**—Golden-spangled.—1, T. P. Carver. 2, R. Keenlyside, Darlington. 3, J. Hudson, Houghton-le-Spring. Silver-spangled.—1, R. Keenlyside. 2, Wells & Sherwin, Ripon. Golden-pencilled.—1, T. P. Carver. 2, A. Bughlass, Bishop Auckland. 3, J. N. Lawson. Silver-pencilled.—1, R. Keenlyside. 2, Davidson & Patterson. 3, J. Hudson.  
**POLANDS.**—1, J. T. Proud, Bishop Auckland. 2 and 3, A. Buglass, Carrville.  
**GAME.**—Red.—1, Davidson & Patterson, Morpeth. 2, O. Kidson, Old Ormsby. 3, C. Taylor, Ryhope. Any colour.—1, A. Buglass.  
**GAME BANTAMS.**—Red.—1, T. Dowell, Sunderland. 2, T. Clark, Sunderland. 3, Wells & Sherwin. Any colour.—1, T. Clark. 2, T. Gothard, Sunderland. 3, J. Dugdale, Sunderland.  
**BANTAMS.**—Any variety.—1, Wells & Sherwin. 2, R. Yoell, Sunderland. 3, Rev. J. G. Milner, Bishop Auckland.  
**DUCKS.**—Rouen.—1, T. P. Carver. 2, J. N. Lawson. 3, Rev. J. G. Milner. Aylesbury.—1, F. E. Gibson, Middleton Teesdale. 2, T. Scott, Oozho. 3, T. P. Carver. Any variety.—1, J. Johnson, Sunderland. 2, Rev. J. G. Milner. 3, T. P. Carver.  
**ANY OTHER VARIETY.**—1, Rev. J. G. Milner. 2, T. P. Carver. 3, Wells and Sherwin.

#### CHICKENS.

**DORKINGS.**—1, J. T. Proud. 2, Mrs. Clark, Hallgarth.  
**BRAHMAS.**—1, F. E. Gibson. 2, T. P. Carver.  
**HAMBURG.**—Golden-spangled.—1, 2, and 3, R. Keenlyside. Silver-spangled.—1, F. Ford, Hetton. Golden-pencilled.—1 and 3, —Kidson. Silver-pencilled.—1 and 3, R. Keenlyside.  
**GAME.**—Red.—1, C. Taylor. Any other colour.—1, Davidson & Patterson. 2, W. Allon, Philadelphia.  
**GAME BANTAMS.**—Red.—1, T. Dowell. 2, G. Searth, Houghton. Any other colour.—1, D. Troup, Moorley.  
**BANTAMS.**—Any variety.—1, Wells & Sherwin. 2, T. P. Carver.  
**POLANDS.**—1, J. T. Proud.  
**ANY OTHER VARIETY.**—1 and 2, G. H. Procter.

#### PIGEONS.

**POUTERS.**—1, R. H. Blacklock, Sunderland. 2, W. Laidlow, Haswell.  
**TUMBLERS.**—1, Wells & Sherwin.  
**PANTAILS.**—1, W. Laidlow. 2, J. T. Thompson.  
**OWLS.**—1 and 2, R. Hall, Moorley.  
**TRUMPETERS.**—1, Wells & Sherwin. 2, R. T. Magee, Hetton.  
**RABBS.**—1 and 2, Wells & Sherwin.  
**TURBIS.**—1, G. Robinson, Sunderland. 2, A. Skokoe, Hallgarth.  
**JACOBINS.**—1, R. S. Magee. 2, G. Wilson, Hetton.  
**DRAGONS.**—1, Wells & Sherwin. 2, R. Welch, Durham.  
**ANY OTHER VARIETY.**—1 and 2, Wells & Sherwin.

#### RABBITS.

**L OP-BARRED.**—1 and 2, J. S. Robinson, Darlington.

**ANY OTHER FANCY BREED.**—1, J. S. Robinson. 2, R. Crowther, Sunderland. Common BREED.—1, R. T. Day, Hetton.

The Judge was Mr. E. Hutton, Pudsey.

### CAPTAIN HILL'S BANTAMS AND PIGEONS IN THEIR HOME AT HALING.—No. 2.

Now, though possessing, as we have seen, valuable and rare Bantams, it is as a Pigeon fancier that Captain Hill is chiefly known. Like many amateurs who really love their birds, he is only a winter, or occasional exhibitor. In judging of the number of breeders of valuable Pigeons we must always remember that first there is a large number of fanciers who will not show their birds on any account, and these are among the truest fanciers, and often hold a good social position. They are not smitten with the love of prizes, and prefer having their pets at home enjoying themselves, and they enjoying their pets. Then there is another large class, who show occasionally and only in the winter, who will not break their pairs or harass their birds to death by railway travelling, and of whose stock not one could be said to be suffering from that cruel-man-caused disease "over-shown." Among the latter class of fanciers and occasional exhibitors is Captain Hill.

Leaving the Bantams strutting about in their glory on the sunny side of the buildings on the inside of the right angle, I proceed to inspect the Pigeons which are, as one might expect so near London and away from the owners, kept shut up. The stables are numbered, and as a rule may contain, for aught I know, splendid cattle—here a match pair, there smart riding horses, here ponies dear to children's hearts; but in Captain Hill's stables the inhabitants are much more numerous, being hundreds of Pigeons. Turning the key we enter, and I find each stall wired-in, and with all the fittings up of a complete Pigeon loft. It must be borne in mind, too, that in a London or London-like mews there are rooms over the stable in which the coachman and his family reside: these rooms are also devoted to and inhabited by Pigeons. But I am as yet at the entrance of the stable. In two of the stalls are excellent Dragons, some of the London, others of the Birmingham style, happily and rapidly uniting and producing a better style—namely, the composite style, or show Dragon of the future. Partisans of each extreme variety have shaken hands, each saying, "Brother, brother, we were both in the wrong." London brother saying, "I was wrong about that thick head and over-large Carrier-look in my Dragons." Birmingham saying, "Well, my birds were a trifle too Skinnum-like, and were rather fit for flyers than for the show pen." Captain Hill possesses excellent Blue Dragons, good Whites, and Reds and Yellows of Mr. Betty's strain, forming altogether a fine sight.

Passing the stalls I come to the loose box, which was full of feeders. The harness room contains some invalids, particularly a Black Carrier hen afflicted with that strange disease, the meagrim—affliction of the brain doubtless. The coach house contains Pigmies Pouters. To these birds Captain Hill has devoted six years' study and experiment in order to breed them to the standard colours of their larger brothers, together with leg-feathering—in short, to make them perfect high-class Pouters in miniature. In this endeavour, or rather in realising his wishes, Captain Hill has, as yet, been only partially successful; still, he can report progress. In the same loft—no, coach house—I saw excellent Magpies and good Blue Carriers; also true Antwerps, not Barbs-cum-Antwerps; also Cumulets or White Eyes, a variety of Pigeons which, for flying, Captain Hill thinks, from former outdoor experience of them, unequalled. It is a German-bred bird, or probably from the Netherlands, and has the finest, clearest pearl eye of any Pigeon, and hence its second name, White Eye.

Having gone through the ground-floor rooms—stalls, loose box, saddle room, and coach house, I now ascend the staircase. On the landing are numerous prize cards—trophies of victory. Then comes the coachman's sitting room, where one would expect to see the coachman's comely wife, with a baby in the cradle, and two older children, one a boy making a chair into an imaginary carriage and pretending to take his sister out for a drive: coachmen's children are specially given to this kind of play. But no: no pouting wife, no noisy children there, but in their place Pouters pouting from pleasure, not temper; and quiet Pigeon-pairs of juveniles in their "procreant cradles," as Shakespeare calls the nests of "temple-haunting martlets." Before me is a Red Pouter cock, seven in limb and nineteen in length, with a wonderful crop and the darkest tail I ever saw, so stained with red that one would imagine it to be almost possible to get a real red tail; but that I suppose cannot be. He is well matched to a hen of even darker body colour than his own. I note, too, a Blue cock, a young bird perfectly marked, and a Yellow of good colour; also a White hen, formerly Mrs. Ladd's of Calne; a Mealy hen second prize at the Palace, and a grand Black cock and Mealy hen. I am amused with the room. Over the fireplace, boiler and oven—that oven in which the coachman's supper was to be kept hot, perchance a remnant of

Pigeon pie—were boards, and on them Pouters cooing and young birds hatching. Next the coachman's bedroom—(I really feel as if I were writing a household-furniture catalogue, and feel prone to add "containing tent bed with dimity hangings)—but recollecting myself, as school girls say, I look around, and am told that this is the variety room, and an uncommonly good variety class are in it. There are first Jacobins, famous Blacks, of raven plumage—the most telling colour in Jacks, save that the rose shows best in Yellows. There were also excellent Reds and Yellows. Nuns, too, of the usual colour, the black-headed; and of the unusual colours, red and yellow-headed. Priests, too, and more Dragoons, and Archangels of an unusual marking—viz., with white heads and flights, which look as if they might be related to Priests. This is a variety which was mentioned by a Mr. Furer in 1858 as having been seen by him in some parts of Germany. Mr. Tegetmeier quotes his words, which are as follows, "Besides the Red, and Black, and Yellow, and Blue there are several varieties, as, for instance, those having white flights either with or without a white spot on the forehead; but those with a clear white head and flights are most prized." Such are Captain Hill's, and very pretty birds they are, to my mind much prettier than the other Antwerps. Among the Jacobins were some Reds of a very solid and rich colour. The variety room had also in it some Black Beards; Black and Chequer Smerles, the supposed original Antwerps, some with a little touch of Owl-like frill—very quick active birds, giving token by their indoor activity of their outdoor powers.

I next enter the back parlour, devoted to Pouters, Reds, Blacks, Blues, and Yellows. Here was the old champion Blue with a splendid hen matched with him, one of the best in England. I notice also a Black hen with good rose pinion, and a Black cock, a very perfect Pouter. I have mentioned in these stables (for there are others to inspect) only the cream, for the birds are so numerous that it is impossible to mention more than those that are most conspicuous to the eye from their special beauty.

Having now seen the inhabitants of the stable proper, I am taken to see the birds which Captain Hill calls his "rough lot," kept in another stable of similar external appearance; but on opening the door I find the building unfinished, the divisions made, but the living rooms not ceiled and ready for a family. In the ground floor of the stable proper is the place for the Bantams; there they lay, and sit, and sleep. Above, with much wing room, the space being open to the slates, are the Pigeons, which fly from rafter to rafter in much enjoyment, and though called a rough lot would not wish, I am sure, to exchange their wider range for the closer-penned superior birds in their grander home. Do we not sometimes see the like to this among mankind? Ah! we do many a time. Amid the rough lot there are some good birds, Gumbles of different colours and Smerles; and in the back parlour, a little separated by netting, I found good Pouters of the two colours Red and Yellow, and a perfect model of a Black hen.

Such is a brief outline or slight sketch of Captain Hill's two pigeonries, situated at half a mile or so from his house, the distance affording a nice walk, and the Pigeons forming a nice object at the end.

Captain Hill is an old fancier, and told me that one of his greatest griefs in early boyhood—a grief which he remembers so well—was his losing a favourite Almond Tumbler, seeing his bird seized upon by a cat and being wholly unable to rescue it. Boyhood's griefs are photographed on the memory, and, like childhood's tears, are very bitter.

"Edina" is full of Japanese curiosities, amongst them two Japanese spaniels, no doubt the original, as Sir Rutherford Alcock supposes, of our King Charles dogs. With us in process of time the King Charlie has been altered, I may say for the worse, and the dogs of the breed now exhibited are black and tan with no white in them. In King Charles's time they had much white and were a great deal prettier. In proof that they had much white I refer my readers to our vol. xxiv., page 58, January 16th, 1873, where is a picture of John Rose presenting the first English-grown Pine Apple to that king. The dogs with the king in the picture have more white in them than black; so of other pictures of the dogs of that and near succeeding days. No one seeing Captain Hill's pair of dogs, soft and silky in coat, and rich black and white in colour, will dispute the point with me that modern fanciers have spoilt the dog by breeding-out the white. Dog fanciers seldom have an eye for beauty, but delight chiefly in what is difficult to attain, no matter how ugly it be when attained. Witness the King Charlie, the pug, and the prize black-and-tan terrier, which is scarcely a terrier at all. I hope the fox terrier will always be judged by his true merits or proved capacity for work, and then the half beagles will disappear, and the true fox terrier be kept.

Captain Hill may well be congratulated on his Bantams, Pigeons, and dogs, and I congratulate myself on a most agreeable visit. The pleasant air and view at "Edina," the sight of the beautiful birds, the stroll through the hay, the visit to the antique and picturesque little toy of a church near, "Perivale

church," and most of all—above all, the real kindly Scotch welcome, make my two days at Baling as pleasant to look back upon as they were to me when there.

N.B.—If a reader has a stable and coach house and no horses, a good thing now that hay is £3 a ton, my advice to him is to fill them with Pigeons.—WILTSHIRE RECTOR.

### DRIVING BEES.

"LINA upon line, precept upon precept," is an old text upon which many a sermon has been preached. How often has the process of driving bees been explained in these pages, with the utmost minuteness and particularity! yet the question recurs again and again, "How is the operation performed?" When once the practice now adopted at some horticultural shows—as recently at Grantham—becomes common, of performing various bee manipulations in public, doubtless an answer to the question will be readily found without constant recurrence to the authorities of our apian journals; till then we must not shrink from reiterating information. Once seen performed by a master hand, anyone gifted with coolness and perseverance will find driving bees a very simple operation. Of course "practice makes perfect."

In my own case I discard much of the paraphernalia which I once thought necessary, and am content with nothing more than some sort of bee-dress, a little smoking brown paper, and an empty box or skep to fit the hive which is to be driven. I begin operations by blowing a steady current of smoke in at the entrance of the hive, which immediately drives the bees up among the combs in a panic of fear. From that moment they are absolutely at my mercy. I proceed then to break the hive from its board, and to turn it upside down upon a chair or pail—anything to steady it. A whiff or two more of the smoke blown in among the combs finishes the courage of the bees, already sufficiently alarmed at the treatment they have received and their sudden exposure to the light.

The empty box or skep is now brought into requisition, and is gently placed over the reversed hive, after which a few taps smartly given to the sides of the hive will cause the whole population, queen and all, to ascend into the empty chamber overhead. A mighty hum is heard at the moment of the rush, which may last a minute or more till the bees are assured of the safety of their queen in her place of exile. When this has toned down to something like silence I lift off the once-empty box, now full of bees; and if I see that most of the bees are in it I put it gently on the stand where the old hive stood, while I proceed to drive out the remainder of the bees into another empty box or skep of similar dimensions. These I carry to their companions on the old stand, and dash them down on the top of it. The parent hive thus emptied of its inhabitants is now ready for any treatment that may be desired. The driving part of the business is done. As for the driven bees they, too, are in the hands of the bee-master to be dealt with at his pleasure, either for transference to a permanent hive like an ordinary swarm, or to be treated otherwise *ad libitum*.—B. & W.

### A SAD CASE.

THE Rev. L. L. Langstroth of Ohio, the author of the best work that ever was written on the honey bee, and the simultaneous inventor with Dzierzon of the frame hive, is prostrated by poverty and sickness, having been even compelled to part with all his bees. This unhappy result appears to have been in a great measure brought about by worry and litigation in defending his apianian patents. The bee-keepers of America have this present summer subscribed both bees and money once more to start their old friend in his favourite pursuit. May their good intentions prosper.—J. HUNTER.

### THE HONEY SEASON IN HEREFORDSHIRE.

PERHAPS it will interest the readers of the *Journal of Horticulture* to have a *résumé* of the experiences of a bee-keeper in the west of England during the past honey season. I say the "past" advisedly, seeing that all honey-gathering ceases in this district when the lime-tree flowers are gone.

Up to the 1st of June or a little later "all went merry as a marriage bell," and a large glass super was taken off full of the most beautiful honey, and a large glass super which was intended for exhibition at the forthcoming show at the Crystal Palace was rapidly filling, many of the cells in fact being sealed. I even had an utopian idea that I might gain a prize, but since that date not an ounce of honey has been gathered. All hives and supers have been decreasing in weight, and so rapidly that it might be midwinter instead of summer. Several swarms were in the last-stage of existence for want of food, and dozens kept in the old-fashioned skeps by cottagers in my neighbourhood have died outright for want of timely feeding.

My hives have indicated their poverty by throwing-out the



young bees from the cells in the pupa stage, and general robbery and anarchy prevail in the apiary. Where I could count last season on having hundreds of pounds of honey, I cannot count on tens. A cottager's bees, which I took the other day in order to save them from the sulphur pit, had scarcely any honey, and the poor bees were, of course, in the small skeps; and most difficult it is to impress upon the cottagers here the utility of larger and better hives. They will not believe in the well-known fact, the larger the hive the greater the population, but I hope in time to get them to give larger and better homes to our hard-working little friends.

I shall at once begin feeding actively, and thus save many hives, the fate of which would inevitably be death long before the winter, and I would strongly advise bee-keepers to weigh and feed if necessary at once.—H. W., Ross.

### AN APIARIAN INCUBATOR!

THE latest idea of our go-a-head friends, the Americans, is to hatch bees by steam; not from the egg as we hatch chickens, but from the pupa or chrysalis, and it is meant to be applicable for queen-raising only. The apparatus is styled a "lamp nursery for hatching queens." It is a double hive made of tin, with a space beneath the walls to hold water. A kerosene lamp keeps the water at the desired temperature of 80° to 100°, at an expense of about a halfpenny per day. The maker facetiously says, "Without a doubt the machine would hatch eggs (perhaps it would also scratch food for the chickens, we haven't yet tried it); but it hatches everything in the bee line quite satisfactorily." The mode of operation is described as follows:—A clean workcomb is put into the hive containing the queen it is desired to breed from, who stocks it with eggs, and when these are found to be hatching the frame is put into a strong queenless colony having no other brood; queen cells, many or few, are at once formed. The operation is repeated every three days, and as soon as the cells on any comb are found to be all capped over the bees are brushed off very carefully (avoiding shaking), and the comb transferred to the lamp nursery. As the queens will all be hatched before any working bee, no bees need be at any time in the nursery.

When the queens are expected to emerge the nursery must be examined several times a day, and as soon as found the young queens must be removed, and it is said if put among any bees that have no queen they will not and be received precisely as if hatched there, provided they have never seen other bees, and have been hatched but a few hours. To make a colony with such a queen it is only necessary to lift out about one-third of the bees, combs and all, from any strong hive, and drop the queen among them or let her run in at the entrance.

Our notions of how the young queen would be received by such a newly-deprived section of a stock is rather different. I should have expected her majesty would have been at once taken into custody if not executed as an usurper; but it may be the queen's virginity stands her in good stead. The experiment is at any rate worthy of trial, and the first opportunity I will put it to the proof, although I won't promise to set up a "lamp nursery" this year.—JOHN HUNTER, *Baton Rise, Ealing.*

### OUR LETTER BOX.

**FOOD FOR DOVES (J. A.).**—The best food is buckwheat, wheat, and Canary seed, though they will eat almost any kind of small grain or seeds. Do not give tares, as they are fatal to them. They are very fond of hempseed, but it must be given sparingly, or they become fat, unhealthy, and lose their feathers.

**CANARIES AND THEIR COMPLAINTS (M. L., a Subscriber).**—Canaries are subject to asthma, but when so afflicted they are better separated from healthy birds. When kept together each has to drink out of the same vessel, and it is far better to prevent other birds from becoming afflicted with so distressing a complaint. It is just possible the other birds might not take the complaint. Being in a room which is low and near the slates, the present weather in particular would not cause the bird to suffer; but a draught or current of air would more likely injure the birds. Generally Norwich birds are as free from illness as those of any other breed. Give your afflicted bird now and then a drop of cod-liver oil, and let it have occasionally a bread-and-milk diet. Keep it in a cage alone with a cover over it.

**TREATMENT OF CANARIES DURING MOULTING (Blue Bell).**—Thistle heads will not harm your young Canaries. The seed is more beneficial, just now in particular, to Goldfinches. The occasional baths during moult will tend much to invigorate your Canaries during the moulting sickness. The water will assist in keeping the feathers in good trim, and encourage the budding of the pin-feathers. The ten Canaries (if all male birds) will learn to sing just as well as though they were separated. If they agree well together there will be no necessity to part them this side of Christmas. If you require exceptional songsters, and the young are under a good tutor, you can select one or two and place in single cages side by side.

**BEES NOT IGIURIAN (C. T. Salisbury).**—The bees you sent are not pure Igiurians; indeed, they have no marks or red bands indicating the Igiurian type. All pure Igiurian working bees have distinct and beautiful red lines or bands across the upper parts of their abdomens.

**COMB AND HONEYCOMB (F. J.).**—You ask the difference between comb and honeycomb. I suppose you know what honey is. Honeycomb, as Mr. Pettigrew used the term, was doubtless intended to mean pure honeycomb—that is to say, combs which the bees constructed to receive honey alone, and which

has never been defiled by the breeding of young bees or the introduction of pollen. His advice was sound. If you want honey in quantity regardless of quality use eskes, give the bees the amplest space in one chamber of enlarged dimensions; but if you want pure honeycomb use supers. In this case you may obtain what you want; you will certainly do so in good seasons. The clump of bees that seemed half dead on the flight-board only seemed so. Had the sun come out they would have quickly dispersed in fainess of life. On very wet days in close weather the hive becomes very hot and stuffy, which causes many of the bees to cluster outside, preferring the wetting to the stifling. Sometimes they get numbed, and if cold suddenly comes on may die in their rashness. If you can afford to plunder your hives this poor season you can take out one or two combs from each strong hive, but take a whole comb in preference to cutting-off a piece of two or more. Take care you do not overdo it; and if you do, feed-up liberally to the desired weight, making allowance for the hive's weight.

**KNIFE FOR CUTTING-OUT COMBS (A. W.).**—It is formed of a strip of steel 3 feet long by one-eighth of an inch thick; the handle is 30 inches long by half an inch broad. The turn-down blade, of 3 inches in length, is spear-pointed, sharp on the edges, and bent so as to form an angle of 90° with the handle; the other blade is 3 inches long by 1½ inch broad, and sharpens all round. The broad blade cuts and separates the combs from the sides of the hives; and the spear-point, which is also sharp on each side, admits, from its direction and narrowness, of being introduced between the combs to loosen them from the top of the hive.

### METEOROLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.

Lat. 51° 38' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1876.	Barom- eter at Sea and Land Level.	Hygrome- ter.		Direction of Wind.	Temp. of Air at 9 A.M.	Shade Tem- perature.		Radiation Temperature.			
August.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 11	29.865	deg.	deg.		deg.	deg.	deg.	deg.	deg.		
Th. 12	29.845	64.5	61.8	S.W.	66.5	78.5	61.5	119.5	59.0	0.739	
Fr. 13	29.788	65.0	63.4	S.E.	68.8	72.1	60.1	115.7	56.8	0.050	
Sat. 14	29.788	64.7	63.4	W.	65.6	75.1	59.4	118.0	56.3	0.018	
Sun. 15	29.685	68.0	66.6	S.W.	68.0	77.0	59.8	121.0	57.8	—	
Sat. 16	29.659	65.4	64.3	W.	67.3	79.6	58.8	126.4	57.1	—	
Mo. 16	29.677	78.7	69.0	W.	68.0	88.1	57.5	128.4	58.6	—	
Tu. 17	29.686	73.0	69.0	S.	65.9	82.1	61.0	126.3	55.9	—	
Means	29.775	67.8	63.7		66.4	77.8	59.7	125.6	56.9	0.135	

### REMARKS.

- 11th.—Dull morning, but a very fine day, and splendid sunset; rain at mid-night.  
12th.—Rain early, but fine by 8 A.M.; shower in the middle of the day, but fine after.  
13th.—Rain early, and till about 9 A.M.; fine till 1.30 P.M.; sharp shower about 2.30 P.M.; but very fine afterwards.  
14th.—Fine but cloudy at 8 A.M., but fine by 10, very slight shower at 11, but very fine day.  
15th.—A dull morning, but very fine day, only rather too warm to be pleasant.  
16th.—A most splendid summer day, but very hot indeed, and scarce any wind.  
17th.—A very hot night, fine morning, and rather cooler; very fine and very hot in the middle of the day, but pleasant breeze sprang up about 8 P.M.

Mean temperature about 8° above that of last week, partly caused by the intense heat of the last three days.—G. J. SYMONS.

### COVENT GARDEN MARKET.—AUGUST 12.

MARKET still very quiet. Large quantities of French Pears arriving—Williams's Bon Chrétien, Beurré d'Amanille, and Duchesse d'Angoulême.

### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	dozen	0	10	1	Malberries.....	lb.	0	8	0
Apricots.....	dozen	1	0	2	Nectarines.....	dozen	2	0	10
Cherries.....	lb.	0	8	1	Oranges.....	per 100	10	0	0
Oblique.....	bushel	0	0	0	Peaches.....	dozen	8	0	10
Currents.....	dozen	2	0	0	Pears, kitchen.....	dozen	0	0	0
Black.....	do.	2	6	8	Pears, dessert.....	dozen	2	0	0
Figs.....	dozen	1	0	0	Pine Apples.....	lb.	0	6	4
Liberty.....	lb.	0	8	1	Quinces.....	dozen	1	6	8
Cobs.....	lb.	6	0	0	Plums.....	dozen	0	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	6	9
Grapes, hothouse.....	lb.	1	0	0	Strawberries.....	lb.	0	0	0
Lemons.....	per 100	8	0	12	Walnuts.....	bushel	8	0	12
Melons.....	each	5	0	0	ditto.....	per 100	1	0	1

### VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	0	Leeks.....	bunch	0	4	0
Asparagus.....	per 100	0	0	0	Lettuce.....	dozen	6	1	0
French.....	bundle	0	0	0	Mushrooms.....	potato	2	0	0
Beans, Kidney.....	dozen	2	0	0	Mustard & Cress punnet	0	2	0	0
Broad.....	dozen	0	0	0	Onions.....	bushel	8	0	0
Beet, Red.....	dozen	2	0	0	Pickling.....	quart	0	0	0
Broccoli.....	dozen	1	0	1	Parley.....	doz. bunches	2	0	0
Brussels Sprouts.....	dozen	0	0	0	Parma.....	dozen	0	0	0
Cabbage.....	dozen	0	0	0	Pears.....	quart	1	0	1
Carrots.....	bunch	0	0	0	Potatoes.....	bushel	2	0	0
Cauliflower.....	dozen	8	0	0	Kidney.....	do.	0	0	0
Celery.....	dozen	1	6	0	Radishes.....	doz. bunches	1	0	1
Coleworts.....	doz. bunches	2	0	0	Rhubarb.....	bundle	4	0	0
Onions.....	each	3	1	0	Salsify.....	bundle	1	0	0
Pickling.....	dozen	0	0	0	Scorzonera.....	bundle	1	0	0
Peas.....	dozen	2	0	0	Seakale.....	basket	0	0	0
Peas, French.....	bunch	0	0	0	Shallots.....	lb.	0	0	0
Garlic.....	lb.	0	0	0	Spinach.....	bushel	2	0	0
Herbs.....	bunch	0	0	0	Tomatoes.....	dozen	2	0	0
Horseradish.....	bundle	4	0	0	Turnips.....	bunch	0	4	0
					Vegetable Marrows.....	doz.	2	0	4



## WEEKLY CALENDAR.

		AUG. 25—SEPT. 1, 1875.		Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock before Sun.	Day of Year.
Day of Month.	Day of Week.			Day.	Night.	Mean.	m. h.	m. h.	m. h.	m. h.	Days.	m. h.	
26	Tu	R. H. S. of Ireland—Autumn Exhibition. Dundee		72.5	48.4	60.4	5 af 5	59 af 6	51 af 11	5 af 5	26	1 39	288
27	F	Bishop Auckland Show. [ Show opens.		73.8	49.1	61.2	6 5	57 6	morn.	51 5	26	1 23	289
28	S	Wakefield Show.		73.7	49.7	61.2	8 5	54 6	12 1	23 6	27	1 5	290
29	Sun	14 SUNDAY AFTER TRINITY.		71.3	47.6	59.4	9 5	52 6	88 2	48 6	28	0 47	291
30	M			74.5	48.3	61.3	11 5	50 6	4 4	58 6	29	0 29	292
31	Tu	Deal and Walmer, and Chippenham Shows.		71.5	47.4	59.4	12 5	48 6	27 5	11 7	1	0 10	293
1	W	Royal Horticultural Society—Dakka Show. Fruit and Floral Committees at 11 A.M. Bath Show opens.		71.1	47.5	59.3	14 5	46 6	45 6	21 7	2	after	294

From observations taken near London during forty-three years, the average day temperature of the week is 72.6°; and its night temperature 48.0°.

## OLLA PODRIDA—A CONTINENTAL TOUR.—No. 2.



LEFT off (page 111) at Aix-les-Bains. It is not my intention to inflict your readers with a chapter out of Murray, as, if they wish it, they can consult that valuable guide book for themselves. I do not, consequently, wish to enter into details with regard to our route, but merely to make a few observations which I hope may prove acceptable to your horticultural readers.

On the Monday we started from Aix for Turin by the Mont Cenis tunnel. The scenery the whole way is very grand and beautiful, and what is particularly interesting is to note how, as the railway begins to ascend, the character of the foliage and vegetation begins also to change. The rise from Chambéry to Modane is very rapid, especially after passing the valley of the Isère and ascending that of the Arc. The mountain sides, especially those to the north and east, are very precipitous, and show the traces everywhere of injury done by sudden thunderstorms washing down the débris of rock, stones, and gravel over the vineyards, which in the lower part of the valleys, nearer to Chambéry, are placed on every point of vantage. As one ascends the valley of the Arc the vineyards gradually give way to patches of Rye and other corn, the Vines being confined only to the cottages or garden grounds; but after Mont St. Michael these too cease, though the thrift of the native mountaineers is very manifest in the way in which they turn every bit of ground into use, and Potatoes and Rye are grown wherever there is sufficient soil to form any staple to work on. Thus—though this is to a certain degree anticipating matters—I saw on the Swiss side of the St. Gothard Pass after leaving Goschemen a crop of Potatoes in one field grown on the top of three large boulders of rock which had fallen off the cliffs, and which were lying on the surface of the ground, the tops of the stones being about 7 or 8 feet above the level of the field. One thing, however, may be safely remarked as a general rule in all these mountain districts, especially in the valleys down which the rivers from the glaciers flow, that the native peasants know full well the value of every square yard of soil, and lose no opportunity of turning it to account. Among other things they are gradually forming alluvial fields in the wider parts of the valley of the Arc by damming up the water, and making it deposit its débris of mud from the glaciers by spreading it equally over the ground by side channels, dams, &c.

It is interesting to watch this land in process of formation, the lower part of it growing crops of Clover, &c., while the middle can only support marsh plants, as Marigolds—i.e., Marsh Ranunculus, Iris, &c., and the upper part is still a pool of muddy water. All the glacier streams bring down a great quantity of detritus, chiefly of the softer whitish granites or the mountain and magesian limestones. This glacier action seems very constant, as in the Isère, the Arc, the Doria, Po, Adige, &c., and the débris which is brought down must be very great;

and though it may be perhaps a bold conjecture to hazard, I cannot help fancying that the flat alluvial plains of Lombardy have been formed in process of time by the action of the glacier rivers overflowing the plains, carrying their detritus with them. It is certainly very singular to notice the way the plains of Lombardy run quite up to the foot of the Alps. The Alps rising from the plain like cliffs from the sea, not so abruptly perhaps as water-worn cliffs; but everywhere in Lombardy the plains, which are almost on a dead level without any undulating or rising ground in them, commence immediately at the base of the mountains, and lie like a level sea between one range of mountains to the other from the Alps to the Apennines.

The line of rails rises up the valley of the Arc about 100 feet in each mile till it reaches Modane, when the rise up to the north-west entrance of the Mont Cenis tunnel (8942 feet high) is very rapid. This was, at the time we passed it, the least pleasant part of our journey, as an avalanche had broken in the arched roof of the last gallery previous to entering into the great tunnel; and while the gallery, or shallow tunnel cut in the side of the hill, was being repaired, the line of rails was carried on a temporary platform of timber and poles, the poles being supported on loose stones on the side of a precipitous cliff overhanging the town of Modane which we had just passed, but which a horseshoe curve of a mile long had brought under our feet again. The train did not go much more than two miles an hour over this temporary viaduct, and it was a relief to get into the tunnel.

The tunnel itself is well ventilated, and lighted at intervals with powerful lamps; the carriages, too, are well lighted; and instead of the atmosphere being at all oppressive, as many persons were led to expect when the enterprise of making a tunnel eight miles long through the heart of the Alps was first entertained, it was far clearer and purer than any of the metropolitan underground railways. One reason which accounts for this is that there is a gradual ascent from the French to the Italian side till within about a mile of the Italian entrance to the tunnel, so that the column of air which enters on the French side is always inclined to ascend. The height of the south end of the tunnel being 4880 feet above the sea, or higher than the northern by 488; moreover, the air at that height is always rarefied, and generally contains an excess of ozone.

As one approached Mont St. Michael on the French side the vegetation rapidly changed, vineyards giving way to Rye grass, Rye grass to alpine plants and short grass; the sides of the hills where the rocks were not too precipitous being clothed with forests of Fir. Mont St. Michael itself is a very striking and precipitous cliff rising from the valley close to the railway, and being remarkable for the great variety of the curvature and character of the strata, and also for the colouring of the mountain limestone. However, I do not wish to detain your readers with any attempt at any geological description of this Mont Cenis range of alpine hill, as the varying character of the strata is most striking. On emerging

from the tunnel the line of rail rapidly descends from Bardonecchia to Susa. Here the character of the scenery is very wild and rugged; at first the railway being carried in a series of tunnels and galleries cut along the face of the cliff overhanging the valley of the Dora Beparia. By degrees the valley opens out, and the different changes of vegetation again commence. First, alpine plants and short herbage where goats and mountain cows graze; then patches of Rye grass; then Potatoes, with Walnut trees, Apples and Cherries grown round the chalets; then a little lower down Vines on the cottages, till by degrees we come to Acacias, Spanish Chestnuts, and fertile vineyards, with crops of Indian Corn; and then, as we reach the plains before entering the town of Turin, the interminable rows of white Mulberry trees, with Vines trained from tree to tree, begin.

The whole of the plains from Turin to Venice are planted with rows of these white Mulberries on which the silkworms are fed. The leaf is different to that of the Mulberry which we usually grow in England, and the growth of the young shoots much more rapid. The trees before we reached Turin were not as yet fit for gathering the leaves from, but as we approached nearer to Venice we saw the leaves being stripped. The silkworms are very voracious, and it is surprising what a quantity of leaves are daily consumed where the larger silkworm-feeding establishments are kept. They are fed in out-houses well shaded and ventilated, but not allowed to be too cold, on large tiers of wood, trays, or shelves raised one on the top of the other, about 12 to 14 inches apart. They are supplied with fresh leaves two or three times a-day, which are gathered in sacks—men, women, and children all assisting in stripping the leaves by means of tripod ladders, much the same as those used by French gardeners for pruning their trees. The trees are kept pollarded and out-back, and the young growth is very rapid, making shoots from 3 to 5 feet long in the season; these are stopped twice, sometimes three times a-year.

The produce of silk in the plains of Lombardy is very great, and the monotony caused by the never-ending rows of pollarded white Mulberries is equally great, the average distance between the rows of trees for many miles in succession being not much more than from 10 to 12 yards, and only about 10 feet or from that to 15 feet between the trees. The intervening space of ground is cropped chiefly with Indian Corn, although Rye is also grown; and between Milan and Verona, where the fields are irrigated, there are also crops of paddy or Rice. The general effect of the plains of Lombardy, though impressing one with their great fertility, is certainly very monotonous, and where whole rows of Mulberries are stripped of their leaves, with bare stems and branches they look very unsightly.

Turin was our first resting-place on the Italian side. It is a city that would delight the Americans, as all the streets run parallel to each other, and are divided by other streets crossing at right angles. It abounds in straight avenues of cropped trees. I had not time to see the public gardens here, but must give Turin credit for the best turf I saw in Italy or, I might say, on the Continent. This was in the square in front of the central railway station, called Piazza Carlo Felice, and, for a wonder, it was well out and also well watered. The river Po rushes by one side of the town, and advantage is taken of its enormous water-power to supply the streets with water by means of water-wheels. I saw the same again in the Adige at Verona. They are erected in the middle of the river, with undershot paddles, which the force of the current turns round. The periphery, or outer rim of the wheel, is hollow, formed, in fact, of a series of boarded-in boxes in which the water is collected and lifted from the river, and they empty themselves when they get to the top of the wheel by means of small spouts into a larger trough, from which it is conveyed by pipes. The whole apparatus (I am describing one or two I took especial notice of at Verona) is exceedingly rough and simple, but at the same time effective. Thanks, however, to the use of the scythe and irrigation, the grass in the Piazza Carlo Felice was really more like an English lawn. I cannot say the same for the public gardens at Milan, although there they had equal opportunities for irrigation; but unfortunately they apparently trusted too much to irrigation there, and took no pains to cut it, and the grass was merely laid flat by the action of the water, and the undergrowth was brown; the effect of the lawn being more like one of our English after-math, or (as in Yorkshire we call them) fog fields, in autumn after heavy rains.

I will, however, continue my remarks upon the Milan and Venice gardens in another number. I had more time at Milan and Venice than at Turin to make notes on the public gardening.—C. P. P.

### EARLY SUMMER FRUITS.

THE first fruit of summer is always looked for more eagerly, eaten with greater zest, and is also more closely criticised than the more abundant and varied supply of autumn; it is, therefore, highly important that it should be as good in quality and quantity as is possible. That both these important properties are liable to suffer from the baneful influences of an unfavourable season has been fully exemplified in the present year, and, unfortunately, when fruit is cultivated extensively, little if anything can be done to avert the evils attendant upon frequent rain, a sluggish moisture-laden atmosphere, and a cloudy sky.

**STRAWBERRIES.**—Immense quantities of Strawberries have been spoiled. A magnificent crop of La Marguerite, with some fruit measuring fully 6 inches in circumference, and which I particularly wished to keep for a few days after it was ripe, was almost totally destroyed by wet, the dense clusters of fruit lying spotted, mouldy, rotten—a lamentable sight not easily forgotten, and an evil as difficult to remedy, for we have no other early Strawberry equal to La Marguerite either in size or appearance. The fruit of Vicomtesse Héricart de Thury withstood the effects of the superabundant moisture better than any other. It is undoubtedly a useful sort, but I would not give the preference to a Strawberry simply because its fruit keeps better than others. La Marguerite, President, Sir C. Napier, Cockscumb, Dr. Hogg, and Frogmore Late Pine are the sorts upon which I depend for a regular seasonable supply. Newer varieties are on trial, but I have as yet seen nothing worthy to take rank with my select half dozen. A white variety having been asked for I have again planted Bioton Pine; its really fine fruit forms a novel and handsome feature in a dessert.

**RASPBERRIES AND CURRANTS.**—Prince of Wales is pre-eminent among Raspberries, its fine, large, handsome fruit being very abundant. Much of its earliest and best fruit was spoiled by the rain. Red Currants also suffered from the same cause. The finest Red Currant is Knight's Large Red, answering admirably to its designation in every respect; stem, branches, foliage, and fruit, both in bunch and berry, are all considerably larger than the ordinary type. This kind, with Victoria for a late sort, merits extensive culture.

**GOOSEBERRIES.**—Split fruit have been very prevalent among large prize Gooseberries, many bushes not affording a single sound berry; the smaller kinds have not suffered so much. A collection of Gooseberries forms an interesting feature in a fruit garden. Many of them are without doubt comparatively worthless when ripe, yet all are useful in the green state. From upwards of a hundred varieties I may select Early Sulphur, Ironmonger, Warrington, Keens' Seedling, Dan's Mistake, a fine, large, red kind, of good flavour, and not apt to crack; Langley Park Green, White Raspberry, Green Walnut, Pitmaston Green Gage, Overall, Red Champagne, and Roseberry.

**CHERRIES.**—Among fruits of loftier growth none are more easily cultivated than Cherries, for no matter what may be the nature of the soil, if it only possesses ordinary fertility the Cherry will flourish in it and yield abundant crops. Unfortunately there are two evils from which its fruit is particularly liable to suffer—the birds and rain. For the rain there is no remedy, but the ravages of birds are easily avoided by the use of Haythorn's netting, which is decidedly preferable to the fish netting, being more durable, and keeping out small insects as well as birds. In order to render this valuable means of protection available a comparatively dwarf mode of culture, either bush or pyramidal, must be adopted, preference being usually given to the latter form as the most productive in a given space, trees of 12 or 14 feet being as readily screened as others of half that height. The best, most useful, and certainly most attractive way of doing this is to plant two parallel rows, and about 10 feet apart, with a path between the rows; the netting is then easily put over the whole of the trees, stretched upon a slight wooden frame, thus forming in favourable seasons a charming avenue, equally useful and ornamental. The netting should not rest upon the soil, but should have a neat calico binding along the bottom, with small brass rings at regular intervals, by which it is attached

to hooks in rough wooden sills laid upon the ground alongside the trees. This simple plan is worthy of attention, as it preserves the netting. No loophole is left for the birds, and access is easily gained to the interior.

The present ungenial season has rendered the duration of the fruit of early kinds extremely brief. I have between twenty and thirty sorts, and will name a few which fruited well this season, and may be strongly recommended for general culture.

*May Duke*.—This forms fine symmetrical pyramids on the Mahaleb stock, and is very prolific. The fruit is large, very sweet and juicy, and earlier than most others.

*Impératrice Eugénie* is very similar to *May Duke*, but certainly not earlier. This season it was quite a week later. Erroneous opinions as to the earliness of any kind of fruit are easily formed, and it would probably prove a mistake if I were to insist that *May Duke* is the earliest kind of the two, and yet I might do so in perfect good faith, judging simply from the results of the present season; but upon inquiry what it was that brought about those results, it was found that the crop of *Impératrice Eugénie* was more than twice as great as the other kind, its fruit clustering so thickly that sunlight and air could not act freely upon it, hence the result. It is an excellent variety of compact growth, very prolific, and is therefore admirably adapted for small gardens.

*Archduke* is another excellent kind of this section, coming in soon after *May Duke*, and affording an abundant supply of fine and very dark-coloured fruit, very sweet and rich in flavour.

*Transparent*.—This is quite the most delicious of the Duke Cherries. Its pale red fruit is tender and very sweet, with a remarkably thin skin. To the connoisseur this may be recommended as one of the choicest of dessert fruits in its season, a veritable *bonne bouche*.

*Reine Hortense*.—A remarkable and striking variety with very large bright red fruit, oblong, and with flattened sides. It has yellow flesh, which is very tender, sweet, and juicy when fully matured. Its magnificent fruit has been of the greatest service this season, and has been much appreciated. Of a compact yet free habit of growth and form; a fine pyramid.

*Kentish*.—One of our most useful Cherries for culinary purposes; quite indispensable for jam, for bottling, and other methods of preserving, and is in constant request for stewing and tarts when in season. It forms fine pyramids on the Mahaleb, and is most prolific.

*Belle Magnifique*.—This, I think, may be fairly termed a late Kentish but with much larger fruit. I have only one plant of it, but that is certainly a "Belle," surpassing all the other pyramidal Cherries in its fine growth and elegant form, which I frequently point-out to visitors as my ideal of what trees so trained should be. One is tempted to extend the list still further, and it is difficult to refrain from dwelling upon the merits of such fine kinds as *Early Rivers*, *Early Purple Gean*, *Duchesse de Palluaux*, *Governor Wood*, *Late Duke*, and several others, but I must not give undue prominence to Cherries in a paper of this kind.

*Plums*.—Of these *Rivers's Early Prolific* stands out pre-eminently among a collection of nearly forty kinds for its early and abundant crops, and its free, vigorous, and symmetrical growth. The dark purple, medium-sized, and very juicy fruit is of the highest excellence for tarts. It ripens in July before all other sorts.

*Rivers's Early Damson* is another excellent culinary fruit, ripening early in August, and forming a valuable connecting link between *Early Prolific* and older sorts of Plums. The fruit is of medium size, and is very sweet and juicy. As Mr. Rivers states in his catalogue, it is a charming addition to Damsons. Most other Plums are more justly ranked with late fruits; but I may add that *Bryanston Gage*, *Jodoigne Gage*, *Lafayette*, *Gisborne's*, *Mitchelson's*, *Victoria*, and *Coe's Late Red* are bearing heavy crops. Almost all the Gages are forming fine pyramids.

*PEACHES AND NECTARINES*.—Among these the honoured name of *Rivers* stands pre-eminent. I have almost a complete set of the *Sawbridgeworth* seedlings in cultivation, but several of the trees are too young for fruiting this season. *Early Beatrice* had an abundant crop, and the fruit was certainly finer than heretofore, highly coloured, and tolerably well flavoured.

*Early Rivers Peach* fully answers my expectations, or rather proves precisely as Mr. Rivers describes it. "Large, colours pale straw, with a delicate pink cheek; flesh melting, or rather dissolving, with a rich racy flavour, most remarkable." Its super-excellence in flavour this season affords additional proof

of the truthfulness of Mr. Rivers's descriptions. The vigour of the tree is remarkable, and I am fully inclined to allow it ample space for its full development, and however long its leading shoots may grow they will not be much shortened when pruned for next season. If we want large fruit we must have a free robust growth.

*Early Louise* is planted in a snug warm corner to see if it will ripen its fruit as soon as *Early Beatrice*, which is desirable, as it is said to be superior in flavour. *Early Alfred* also has a favourable position.

*Rivers's Early York* is a magnificent Peach. Much of its fruit this season is very large and highly coloured, and is excellent in flavour.

*Dr. Hogg* is another fine Peach, large and of rich flavour, carrying on the succession well till the ripening of my old favourite *Grosse Mignonne*.

Of Nectarines the only kind which may fairly take rank among early fruits is *Lord Napier*. It is a splendid variety fully answering to the description given of it on page 110. It is very prolific, and of robust vigorous growth.—EDWARD LUCKHURST.

## NOVELTIES IN THE ROYAL GARDENS, KEW.

In the Orchid-house porch are collected several plants of much interest, and we can there conveniently commence our inspection. *Agapanthus umbellatus major* is a larger and finer form of that well-known and invaluable decorative plant. It is from the late collection of W. W. Saunders, Esq., where we have known it for several years, but from the slowness of its increase has been but little distributed. With one or two exceptions the stock is in the hands of Mr. Green of Reigate. It may seem superfluous to say anything in favour of a plant with such an established reputation, but having recently seen a fine display of the species grown in a window we may mention it as suited to that kind of culture. *Kniphofia MacOwanii*, a dwarf type, we have before described; it is again in flower, and a short time ago was figured from specimens sent by Mr. C. Green, who holds the stock of this as well as of the above.

To *Oxalis Smithii* we would call special attention. It is a free-flowering Cape species, producing a profusion of rose-coloured flowers. The leaves are very pretty; each segment is deeply divided into two narrow lobes. This is a perennial, and in favoured situations is perhaps hardy. *O. rosea*, such as would nicely finish off the front of a conservatory bench.

Though the present is a dull season of the year for Orchids, several beautiful kinds are in flower with others of botanical interest. The new *Cypripedium Sedeni* has two spikes with four flowers each of a fine pink colour. It has the pink flowers of *Schlumlii* with the free habit of *C. longifolium*, and is certainly one of best autumn and winter-flowering *Cypripedes* we have. It is interesting to observe that the parents just mentioned produced precisely the same plant when in reversed relationship as to sex. *C. Veitchii* has three fine flowers. *C. carolinum* and *C. Dominianum* may also be mentioned. *Dendrobium sanguinolentum*, blooming at intervals all the year round, is in good condition. *D. eburneum* is very attractive. Among *Epidendrums* are *E. erectum*, *E. radiatum*, and *E. cinnabarinum*, with *E. cochleatum* and its several varieties, which are never out of bloom. *Oncidium Wentworthianum* has a good spike. There is also a fine plant of *Oncidium lanceanum* with two fine spikes. Here is the interesting *Dove Plant*, or *El Spirito Santo*, so called, as is well known, from the fancied resemblance of the column to a dove. *Phalenopsis grandiflora* is scarcely ever out of flower, and is now represented by a fine form. Also we note *P. cornu-cervi*, *Laelia xanthina*, the sweet-scented *Coslogyne corrugata*, *Masdevallia amabilis*, and the beautiful *Disea grandiflora*.

The *Victoria regia* is now in vigorous flowering condition, and almost every evening from about five to six o'clock may be seen in perfection. Round the tank are several extremely fine specimens of the only genuine aquatic Fern, *Ceratopteris thalictroides*. It is one of the prettiest of Ferns, though quite a rarity in cultivation, perhaps from its being an annual. The light apple-green tint of the fronds is refreshing to look at. Spores are produced in great abundance, and should be sown about March or April, when they germinate in a few days and make rapid growth. The whole plant is viviparous, and plantlets are often freely produced.

Passing through the Economic house we remark in fruit a hybrid that to cultivators of the useful parents must be of

interest, as well as to the scientific. The seeds were presented by Colonel Trevor Clarke, who obtained them as the result of crossing a Melon with Telegraph Cucumber. It partakes chiefly of the character of the Cucumber, the leaves being much the same in form and roughness, while the fruit in shape has a close resemblance but is covered over with a fine network, the most evident trace of the mother. Sageret and Naudin seem to have before tried to cross these plants, and meeting with no success considered them as specifically distinct on that account. It may seem superfluous to say anything on the point of distinctness, but we read in Darwin's "Animals and Plants under Domestication" that "There is a race of Melons in which the fruit is so like that of the Cucumber, both externally and internally, that it is hardly possible to distinguish the one from the other except by the leaves." Further on we have information that, we venture to say, is not known to cultivators as a rule. Some Melons weigh as much as 66 lbs., while others are no larger than small Plums. One is not more than an inch in diameter, and is sometimes more than a yard long, twisting about in all directions. A variety from Algiers is remarkable from announcing its maturity by spontaneous and almost sudden dislocation; deep cracks suddenly appear, and the fruit falls to pieces. The varieties of the Melon are endless. Naudin after six years' study had not come to the end of them.

On the rockwork we shall mention one very charming plant—*Erpetion reniformis*, the Australian Violet. It is now placed in the genus *Viola*, and has only been distinguished by the lower petal wanting a spur and the anthers a dorsal appendage. The leaves are reniform, clothing the ground with a carpet of green, while the flowers rise erect on slender stalks, the centre lilac, each petal tipped with white. At the Jardin des Plantes of Paris a short time ago we saw a perfect specimen. It was growing under a bell-glass in a shaded position, and so situated is quite at home for the summer; but not being thoroughly hardy, must be preserved in a frame during winter.

In the Succulent house are two plants of *Decabelone elegans*, each with a flower. It is closely allied to *Stapelia*, but has funnel-shaped flowers. As a new plant we gave a detailed description at page 486, June 18th, 1874.

In the Herbaceous ground *Clematis Davidiana* is very attractive from the dense fascicles of its pale blue flowers. It is allied to *C. tubulosa*. *Campanula isophylla alba* is a welcome companion for the blue-flowered species; it originated here among a batch of seedlings. *Linum salsoloides* is one of the most choice and distinct for rockwork; the stems are very slender, and support a multitude of white flowers tinged with lilac in the centre. *Eucemis punctata* from the Cape seems to be hardy; it now has stately flower spikes, and though green-flowered it is worth growing from its distinct character. *Eryngium Sumbul* unfortunately has not matured fruit, probably from the extraordinary continuance of wet weather during the time of its flowering. We understand that fruit has been ripened at St. Petersburg.

#### TAKING-UP AND STORING POTATOES.

MR. RECORD has, on page 140, recommended a plan adopted by Mr. Durey of Hothfield in order to mitigate the effects of the disease. This is the very simple process of pulling-up the haulm and leaving the tubers in the ground. It is a pretty-well-ascertained fact that if the haulm is pulled away from the rows soon enough—that is, before they are in any way affected by the murrain—the crop itself is safe; but if the haulm is once affected, even if only slightly, the removal of the haulm then is no safeguard against the disease destroying the tubers; these will decay as rapidly as if the haulm had not been removed.

By experiments extending over a series of years I have found that by removing the haulm from early Potatoes in July, before any signs of the disease have been manifest, the tubers if left in the ground for months are not afterwards affected by the murrain however virulent it may be on the later crop, and also on the early crops, from which the haulm had not been removed, or had not been removed soon enough.

Cutting off the haulm is not nearly so effectual as pulling it up, and pulling off is of no real use unless it is done before the plants are affected.

After the haulm is removed the tubers do not swell, and the utmost watchfulness is needed to determine when the work can be the most profitably done, for by pulling too soon we sacrifice the bulk of the crop, and by postponing even a day too long the work of removing the haulm is futile. When the

disease has once become established in the plants it spreads through the tubers whether the haulm is removed or not, providing the weather is propitious for fungus growth.

For the rapid increase of the Potato fungus moisture is not only needed but also a high temperature. If a moist high temperature is provided the tubers will decay whether they are out of the ground or undug; therefore an all-important point to determine, by way of arresting the murrain, is—in what place the tubers can be kept the most cool, whether in thin rows under ground or in stores above it. Moisture alone without heat does not foster the spread of the disease germs which are already in the tubers nearly so much as does heat without moisture. As an example, take up tubers from an affected crop and bury a portion thinly in a cool moist place in the garden, and at the same time introduce another portion into a heated structure of any kind having a minimum temperature of 70°. Those in the heat, even if kept dry, will decay with great rapidity, while those which are cool, if moist, will remain apparently sound for a great length of time.

Merely storing thinly will not check the spread of the disease unless the temperature is cool. A single layer in a temperature of 70° will decay, while a layer a foot thick with a temperature of 50° will remain sound, or at any rate the disease will be quiescent. This is an important point to bear in mind in the storing of Potatoes.

In the large Potato-growing districts it is a common practice to cart the Potatoes into heaps by the side of corn stacks, so that poles can be leaned over them and covered with tarpaulin to protect them from rains until the bulk can be sorted by women and children. I have seen such heaps on the south side of stacks a mass of rotteness, those on the north side not being nearly so bad. The difference in temperature was plainly the reason of the difference in the decay. No practice can well be more reprehensible than to pile a disease-infected crop into large heaps, where they must necessarily remain for a considerable time before they can be sorted. A practice such as that, and it is a very common one, is really an invitation to the disease to come and do its worst. It is, by the heating which must inevitably take place in a large heap of newly-dug Potatoes, creating the very medium in which the Potato fungus luxuriates, and which must end in the destruction of the bulk of the produce. Better, far better, than this is it to leave them in the ground until November, where the tubers will be cooler and an infinitely greater portion of them will remain sound.

I am one who believes that there is a great deal of force in the practice of Mr. Durey as quoted by Mr. Record, simple as it may appear, and unlikely as, at the first glance, it may seem calculated to mitigate the destruction of the tubers.

The storing of Potatoes is an important matter, and by injudicious treatment in this respect thousands of tons of valuable produce have been ruined. So far as I have been able to judge it is a vital point to keep the tubers cool. If they can be stored cooler out of the ground than in, take them up; but if they are cooler in the ground than out of it, leave them undug until November. This advice is not founded on theory alone, but actual practice. I cannot, however, go further into the matter at the present, but the question is worthy attention, and cultivators would do good service by recording their experience of the best treatment of the crop at the time of its harvesting.—YORKSHIREMAN.

#### FRUIT ROOM.

In all large places, where a quantity of fruit has to be kept in good condition until its proper time of ripening, a good fruit-room is an indispensable adjunct. This season there is every prospect of good crops of fruit, and no doubt many a gardener will be puzzled to know where to store it, and will be compelled to make use of many makeshift plans where it will be impossible to keep it, or to examine it as it ought to be. It will be thrown in heaps like so many Potatoes, where decay will speedily take place after it is gathered; and on the first general examination, which will probably take place the first wet day that happens after it is all collected, it will be found that a great quantity of the fruit is in all stages of decay, and that basketful after basketful of the once beautiful Pears or Apples has to be consigned to the rot-heap or a dessert for the pigs—a waste which the gardener can in no way avoid if a suitable structure is not provided for storing.

Gardeners who have a large quantity of fruit to keep, and who are not provided with proper structures, should point out

to their employers the necessity of erecting such. Let them explain minutely the necessary requirements, and perhaps there may be found some existing building that could with a very little expense be fitted up as a fruit room; or, in the absence of that, he will be able to point out the most suitable site for one, and the most convenient and best mode of fitting it up, &c., and there is no reasonable employer but will accede to his request.

I send you ground plan and section of a fruit-room which has been erected here for my employer, W. Hatton, Esq., as it may, perhaps, be of some assistance to those who contemplate erecting one. Fig. 23 is a section of it, and shows the ventilator at the far end of the room. It is at the back of the north wall of the garden where it is erected, so that the aspect is north. One-half of the door of entrance to the room is *louvre* with slide, so that we can have a current of air through the room, or shut it up as required; the windows open also as ventilators if required. There is an air space in the walls with ventilating air-bricks bottom and top, which prevents all danger arising from a damp inside wall, and is also much more effectual in resisting the frost than a solid wall.

chemist, and his garden is in close proximity to his works; but on entering the exhibition tent and after a careful inspection of the plants all idea of the smoke, the dust, and dirt of the "east end" of London is removed; the plants and flowers are as clean and healthy as if they had just been removed from the bracing air of the country.

The principal competition was in the collections of plants, and these were arranged much in the same way that the principal nurserymen arrange theirs at the large exhibitions—foliage and flowering plants, either stove, greenhouse, or hardy, mingled together to form the best effect possible. Mr. O. Parker, from Clay Hall Works, Bow, had the best collection, it occupied 80 feet run of staging; another very nearly equal to it from Mr. H. T. Deacon, British Street, Bow, of the same extent was second. In Mr. Parker's collection were some very well-grown Palms, and in the front row dwarf Cookscombs of excellent quality. Mr. Deacon also exhibited a splendid *Dicksonia antarctica*, five hardy Ferns, and six fine pots of *Glaucolus Breuchleyensis*. Lilliums were very fine indeed, the best were sent by Mr. Hare. Dahlias were exhibited by Mr. Whendon, High Street, Poplar. Fuchsias very well grown indeed by Mr. Hanson. There were also collections of fruit, showing that pomology is not neglected where floriculture flourishes. Mr. Yull of 10,

Fig. 23.  
Section.

a, Table.  
b, Pathway.

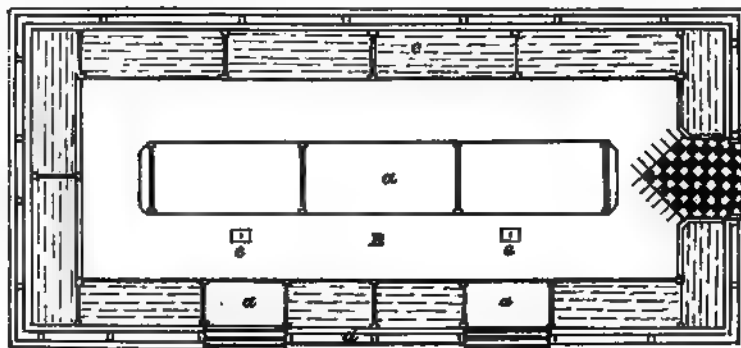


Fig. 24.  
Ground Plan.

Scale 8 feet to the inch.

c, Trailing shelves.  
d, Air space in walls.

e, Lids for admitting hot air from pipes underneath.  
f, Ventilator.

The interior arrangements, as will be seen from the drawings, consist of trellis shelves all round, and opposite each window is a table with drawers underneath; the former is useful for examining or comparing fruits, the latter for storing any choice sort. There is also a table down the centre of the room 20 feet long, and a pathway all round laid in diamonds with 6-inch paving bricks, red and blue alternately. In the pathway will be seen two lids; these are to admit heat if necessary from hot-water pipes underneath. The pipes are mains, flow and return, which supply a range of houses on the opposite side of the wall. The ceiling is covered with match-planned boards, and all the woodwork is planed smooth, and the sharp edges taken off the strips to prevent any indentation of the fruit; and the uprights and strip in front of each shelf. The ceiling and table-tops are all varnished, so that the whole presents a very neat appearance, and my employer along with his friends enjoys a walk round the fruit-room quite as much as round the garden, examining the different sorts of fruits, which are laid out singly and named, and with their supposed time of ripening also noted.—J. ANDERSON, Hill Grove.

#### EAST LONDON AMATEUR FLORICULTURAL SOCIETY.

THE summer Exhibition of this prosperous Society was held in the grounds of the Grammar School, Tredegar Square, Bow, on the 16th and two following days. On the present occasion a large tent was quite filled with the productions of amateurs in the vicinity, and the excellent exhibition which they made was an instance of what can be done when men are thoroughly in earnest. Their gardens without exception are of very limited extent; their glass houses are also necessarily small, and are not always built according to the latest designs and on the most improved principles. The men who own the houses and gardens are hardworking men, and are engaged by day either in business or mechanical pursuits, and their hours of relaxation are devoted to their flowers. In nearly every instance is their gardening carried on under difficulties, but these are only there to be overcome. One of the principal exhibitors is a manufacturing

Frederick Place, Bow Road, had Muscat and Black Hamburgh Grapes, Pears, Apples, &c. Mr. Parker had Peaches, Plums, Pears, and Apples; and Mr. Whendon also showed a creditable collection. The Balsam is a popular flower at the east end, and it was represented by a large number of well-grown plants.

We must not omit the dinner-table decorations and the baskets of flowers. Some of the baskets were very well arranged, but the largest number were too heavy and stiff; and in respect to the dinner-table decorations, while none of them could be said to be first-rate, the largest portion were well arranged, the fault throughout being an over-abundance of flowers. Even the first-prize vases were not faultless in this respect.

Great praise was due to those exhibitors who sent plants and cut flowers not for competition. Mr. S. Hill of Alfred Street, Bow, sent a large collection of well-grown plants. Mr. W. Paul of Waltham Cross sent stands of Roses and Zonal Pelargoniums; and Messrs. Paul & Sons, Cheshunt, cut Roses, both exhibitors having very fine blooms of the leading varieties. We were informed that many thousands of visitors were admitted to the show during the three days that it was open, and in many a heart the love of flowers must be fostered and encouraged. The Committee, which is composed of the exhibitors themselves, deserve thanks for providing such an interesting source of recreation in this densely populated neighbourhood.

#### MR. THOMAS TAYLOR.

MUCH do we lament the death of this contributor to our columns. In all the relations of life he was estimable. As a member of the firm of Webber & Co., fruiterers in Covent Garden Market, he was an able and courteous man of business. Having a love for and sound knowledge of fruit and its culture, he aided in the effort to establish the Pomological Society, and to within a few years of his death he continued a member of the Fruit and Vegetable Committee of the Royal Horticultural Society. He died on the 15th inst., aged sixty-seven.

MULCHING STRAWBERRIES.—Some years ago I read in this Journal that bean chaff was excellent for mulching Straw-



berries. I have used it ever since, watering them with weak liquid manure, and then putting on the chaff just when the flowers were setting. I never see a slug, and my Strawberries are splendid. I have only a man of all work, and we have better fruit than our neighbours with several gardeners.—  
A POOR LADY.

### ALEXANDRA PALACE.

#### THE METROPOLITAN FLORAL SOCIETY'S SHOW, AUGUST 24TH.

When we find nearly £50 in prizes offered for Dahlias, upwards of £20 for Hollyhocks, £35 for Gladioli, and £18 for Asters—when we find this, also at the helm the Rev. H. H. Dombrain, we are satisfied that neither by a lack of energy in management or encouragement to growers shall this autumn exhibition of florists' flowers fail. Added to this we have recently had fine weather to finish the flowers which constituted this two-days exhibition. The display may be fairly considered a good one, and such as should afford encouragement to the promoters in their laudable endeavours to promote the cultivation of such garden flowers as may be—but are not—grown in every garden. As to the intrinsic beauty of these flowers none can dispute it. What more brilliant and yet more stately than a collection of Gladioli, either in the garden or on the exhibition table? What more rich and imposing than the symmetrical and massive Dahlias, or more commanding than the towering forms and varied masses of colour of the Hollyhocks? Where can we find a more diversified display of colour combined with beauty of form than is afforded by the varieties of Asters? And to these may be added brilliant Zinnias, Verbenas, and Roses, and we have the material to make the garden gay and the show room attractive.

The collections were arranged down each side of the great hall, reaching nearly the entire length, the centres of the tables being occupied by well-grown Ferns, Begonias, &c., furnished by the Palace Company. These plants afforded a great relief to the formal masses of cut flowers, and broke up the monotony which otherwise would have prevailed.

The most effective display in the Exhibition was undoubtedly afforded by the Gladioli. These were staged in considerable numbers, and many of them were of high quality.

In the nurserymen's class for thirty-six varieties Messrs. Kelway & Son, Langport, were in the ascendant. Their collection was a noble one, being massive, varied, and brilliant. In the high-coloured section some of the most striking were Prometheus, fiery scarlet; Meyerbeer, vermilion scarlet; Antisthenes, Oscirus, and Victor. Of salmon and roses, Astra, Serapis, Alector, Carbas, Pythias, and Agrius were the best, the last-named having a certificate of merit awarded it, it is a stately flower of fine form. Among the lighter colours Shakespeare was pre-eminent, followed by Chromius, Mansolus, Clymenus, and Veronica. Certificates were also awarded to Titus, a fine flower flaked with lilac purple and magenta, and Brennus, a rich flame-scarlet variety. Messrs. T. Bunyard & Sons had a third prize for smaller spikes. For twenty-four varieties Messrs. Kelway again distanced their competitors with a collection which had not a poor spike or indifferent bloom amongst them. Mr. Walker, Thame, and Messrs. T. Bunyard & Sons had second and third place respectively with attractive collections.

In the amateurs' classes also splendid spikes were exhibited, those from Rev. H. H. Dombrain and Mr. Douglas, gardener to F. Whitbourn, Esq., being equal to those of Messrs. Kelway. For eighteen varieties Mr. Douglas had the post of honour. With the exception of Delicatissima and Madame Furtado the whole collection were seedlings raised at Loxford. One of these had a certificate of merit, and was named Mr. McKenzie. It is a smooth flower of perfect form, and a warm salmon-rose colour; it has a good spike, and worthily heads the list in this section. The remainder of the seedlings were fine, one of them having twenty-four blooms and buds, and embraced a great variety of colours. The Rev. H. H. Dombrain was placed second with very fine spikes of Meyerbeer, Horace Vernet, Robert Fortune, Peyche, Seda, Glinerva, and seedlings. For twelve varieties the Rev. H. H. Dombrain had the first place with admirable spikes, in which the rose-feathered varieties predominated. Very fine indeed were Murillo, Meyerbeer, Legouvé, Lady Bridport, and Pactole. The last-named is a distinct sulphur-coloured variety, and had a certificate of merit awarded. Mr. Douglas was placed second with, principally, seedlings richer in colour but not so fine in spike as the preceding. Mr. Stadden, Chipping Norton, and Mr. Catley, Bath, were placed second and third respectively with meritorious collections. For six varieties first honours went to Mr. J. W. Minchin, Eastend, Hook Norton, with capital spikes of Eugene Scribe and Madame Furtado, the rest being seedlings; Mr. Fewkes being second. Messrs. Kelway also exhibited a miscellaneous collection of sixty varieties.

Dahlias were the next important feature of the Exhibition. Owing to the cold and wet July these have not quite reached their zenith of perfection, yet many very fine blooms were

staged. In the nurserymen's class for forty-eight varieties Mr. Keynes, Salisbury, had a collection of great excellence, but owing to the names having been hurriedly scribbled in pencil on blue paper they were nearly invisible to the spectators. For twenty-four varieties Mr. Walker, Thame, had the first place, his best blooms being Grand Sultan, John Kirby, Thos. Gardener, W. P. Layard, Jas. Cooker, Julia Myatt, John Standish, Royal Queen, and Hugh Miller. For twenty-four Panoles Mr. Keynes and Mr. Walker were placed first and second respectively. In these boxes really splendid blooms were exhibited of Rev. J. B. M. Camm, Rose Flake, John Lamont, Letty Coles, Fanny Sturt, and Egyptian Queen.

In the amateurs' classes for twenty-four varieties, Mr. Fewkes, Tyburn Erdington, Birmingham, was first with charmingly finished blooms of Leah, Lord Derby, Flag of Truce, John Standish, John Neville, Miss Turner, James Service, Mrs. Boston, Walter Reid, &c. Mr. Southgate, gardener to J. Pettward, Esq., Frimborough Hall, Stowmarket, had the second place. In this stand Charles Backhouse, June, Critarian, and Norfolk Hero were perfect, and the rest good. Mr. Petfield, gardener to J. Thornhill, Esq., Deddington, third. For twelve varieties H. Glasscock, Esq., was placed first with a collection of great merit, every bloom being good. They comprised Royal Queen, James Service, Cremorne, Thos. Goodman, Flag of Truce, Queen's Messenger, Vice-President, Ovid, Mr. Harris, John Standish, Picotee, and Willie Eckford. Mr. Hurst, Putney Road, Enfield Highway, was placed second. Mr. G. Smith, New Villa, Hedge Lane, Edmonton, third; and Mr. Griffith, Brooklet Villa, Wood Green, fourth. For twelve fancies Mr. Petfield, gardener to A. J. Thornhill, Esq., Deddington, had the first award with grand blooms of Mrs. Saunders, John Lamont, Flora Wyatt, Fanny Sturt, Grand Duchess, Mrs. Bennett, and some well-marked seedlings; H. Glasscock, Esq., Mr. Southgate, and Mr. Fewkes following in the order named. Certificates of merit were awarded to Mr. G. Rawlings, Romford, for Mr. Quennell, orange tipped with red, a richly-coloured flower of good form, and John Bennett, crimson scarlet, an immense bloom of good shape; also to Mr. Keynes for Henry Glasscock, bright maroon, smooth, and of very fine shape.

Hollyhocks were the weakest part of the Show. For nine spikes, open, Mr. Chater, Saffron Walden, won with Rose Supreme, Alba superba, Leah, Purity, Midnight, Fire King, Perfection, Mrs. Chater, and Exhibitor. Mr. Minchin also had a minor award. For twenty-four cut blooms Mr. Chater was again placed first, Mr. Minchin second, and Mr. Walker third, but except the first-prize collections the blooms were very small. Amongst amateurs, for twelve blooms Mr. Catley and Mr. Minchin were placed first and second respectively, and for six blooms Mr. Petfield was first with the best blooms in the Exhibition, Mr. Fewkes having the second award.

Roses were particularly bright and fresh. In the nurserymen's class for twenty-four varieties the redoubtable Obesumbra firm of Paul & Son had the first place with a collection worthy of a June show, Mr. Keynes being placed second with a good collection, and Messrs. T. Bunyard & Sons, Ashford, third. Messrs. Paul & Son also exhibited a collection of the best varieties in quartets; Mr. Prince, Oxford, exhibiting equally well in triplets. Mr. Turner, Slough, staged a box of Rev. J. B. M. Camm, the sweetest of all sweet Roses, excepting perhaps the old Provence Cabbage, and with its sweetness a fine form and a rich salmon rose colour. This should become a highly popular garden variety. A first-class certificate was awarded. Amongst amateurs Mr. Fewkes was the only exhibitor; his blooms were very good.

Asters were an extensive and excellent display. For thirty-six varieties of French Asters Mr. Walker was placed first in the open class for very perfect blooms, followed by Mr. Chater, Mr. Betteridge, and Mr. Meadmore respectively. Amongst amateurs the honours fell in the following order—Mr. Morgan, gardener to Major Scott, Wray Park, Reigate; Mr. Petfield, Mr. Catley, and Mr. Anderson for highly creditable collections. The Quilled or German Asters were a charming display and a source of great attraction to the visitors. The awards went in order to Mr. Betteridge; Mr. Benham, Newbury; Mr. Webb, gardener to J. Pennystones, Esq., Chipping Norton; and Mr. Petfield. Mr. Betteridge also exhibited fine named varieties.

For twelve Zinnias Mr. Chater was placed first for brilliant and very double flowers, followed by Mr. Walker, Major Scott, and Mr. Hooper in the order named. For Verbenas Mr. Turner was the principal prizetaker, and Mr. Hooper exhibited Phloxes. The Exhibition being extensive and the quality good, with fine weather and a large attendance, it is hoped the success is commensurate with the efforts which have been made to secure it.

FLOWER MISSION, HOME OF INDUSTRY, COMMERCIAL STREET, SPITALFIELDS, E.—The work of this Flower Mission, and that at the Conference Hall, Mildmay Park, N., which has been such a cheer to hundreds of suffering ones, is falling off terribly for want of flowers. We should be most thankful for any.



flowers, or pots of flowers, or packets of flowering bulbs; also for Lavender and fresh fruit. I am sure our need has only to be mentioned to secure the kind help of your readers—the possessors of gardens and orchards.—E. A. H., *Sec. Flower Mission*.

### KNIGHT'S NURSERY, HAILSHAM.

HAVING accomplished a peep at Piltown, a rosarian's next desire during his stay at Eastbourne will be to visit the birth-place of that very charming Rose Princess Louise Victoria. This Rose is of a colour quite new among English seedlings. It is of very vigorous growth, and certainly almost an exhibition Rose. I was very sorry to hear that there were no sisters likely to follow. Mr. Knight has not since then been doing much in the way of English seedlings.

He took me over his gardens in a very obliging way, and we had an agreeable chat as to the coming Roses of the period. I saw some very fine blooms, considering the season and the want of rain at Hailsham, and shall venture to transcribe my notes, as, judging by myself, Rose gossip in your columns can generally meet with a reader.

The soil of the Hailsham nurseries is a good loam with clay underneath, and the Roses flourish accordingly. Capitaine Christy was only good on the Briar, the Manetti he had taken to very unkindly; Niphetos was magnificent, Marguerite de St. Amand good. This was also particularly fine at Piltown. To the Duchess of Edinburgh I desire to make my apologies for what I lately said of her. As bloomed at Hailsham she is almost as good as Marguerite de St. Amand, and very fragrant indeed into the bargain. As Miss Ingelow says in one of her charming Lincolnshire poems—

"A sweeter woman ne'er drew breath  
Than my son's wife Elizabeth."

I never held a sweeter Rose in my hand than the Duchess of Edinburgh with which Mr. Knight presented us.

Among other new Roses Albert Payé appeared a lighter kind of Mdle. Marie Finger, and decidedly good; Maxime de la Rocheville was new to me, it is of enormous size and very dark; Princess Beatrice is here also very taking. There was a most charming box of this last June at the Alexandra Palace. Susannah Wood was one of the most striking Roses. It is as large as Paul Neron, and very like him, but has the petals beautifully imbricated, almost after the fashion of the Tea Rose Homère. I am inclined to think it will come to the front. Mr. Knight pointed out to me another new Rose with which he is much pleased, and which can hardly fail to be appreciated in "the box." It is called Souvenir de Spa, and is of vigorous growth. It has all the compactness of Sénateur Vaisse, with a depth of colour that is worthy of Reynolds Hole; it is a Rose that I have not as yet seen anywhere mentioned.

The Roses I understood received comparatively little dressing, except one of burnt earth mixed with weeds and other refuse. They certainly do credit to their place and culture.—A. C.

### POROUS GARDEN POTS.

MR. SIMPSON and myself judge from different standpoints, therefore it is not likely that we shall agree except to differ. It is for others to determine for themselves the advantages of a dirty over a clean pot, and a glazed over a moderately porous pot. I advocate cleanliness and moderation; my friendly opponent dirt and dogmatism. I discriminate between the nature of plants and their adaptability to a given character of pot, admitting that some flourish in glazed pots; he admits no such distinction, but believes that epiphytall plants may be well grown in poreless pots, and clinches his argument by stating that Mr. Thomson is transferring even his Orchids to glazed pots. Well, someone must be the horticultural Columbus to teach us the process of making an egg stand on its end. I confess that I have failed, and have had to remove Orchids out of porous pots and material into others more porous still, and I have seen the advantage of doing so.

But Mr. Simpson requires "reasonable evidence." I can give no better than that the Messrs. Veitch of Chelsea, instead of using pots with perforated sides (porous enough, one would think), are finding the advantage of growing many specimens in open latticework crates. This practice has not, that I am aware of, been hitherto alluded to in the horticultural press, but the "utility" of it is proved to demonstration. The fact is that many plants which flourish in close airtight pots and material do so mainly by the roots that are outside the pots

feeding on the air, and not by the roots inside the pots, which often convey but little nutriment to the plants which they are fondly supposed to support.

I have readily admitted that very soft and coarse clay pots are not the best for the general use of general growers of plants, and the same experience compels me to say that clean, well-burnt, earthenware pots are the most safely recommendable of all the sorts that I have used. I have been potting plants for twenty-five years, and have Mr. D. Thomson's testimony as to being "practical," and other proofs which I value, if possible, even more than that. That is my excuse for writing. I do not complain of anything that Mr. Simpson has said, but, on the contrary, welcome his experience, which will set others a-thinking and lead to further experiments on this important matter. I have nothing more to say.—*EX-HIBITOR*.

### PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

*MERTENSIA ALPINA*. Nat. ord., Boraginaceae. Linn., Pentandria Monogynia.—Flowers blue. "A lovely little rock plant, a native of the higher parts of the Rocky Mountains, and, like many such, inhabiting an immense stretch of latitude—namely, from 39° N. to the Arctic seacoast. It is an extremely variable plant. *M. alpina* was imported by Messrs. Backhouse of York, who flowered it in May last."—(*Bot. Mag.*, t. 6178.)

*MICHELIA LANUGINOSA*. Nat. ord., Magnoliaceae. Linn., Polyandria Polygynia.—Dr. Hooker says, "Described as a lofty tree in Nipal, according to Wallich, by whom it was discovered in 1821; though I never saw it forming anything but a small tree in Sikkim, where I found it at an elevation of 6-7000 feet in 1848. It has also been collected in Bhotan by Griffith, and in the Khasia Mountains by Lobb. The flowers, which are very sweet-scented, vary much in size, from 3 to 4½ inches in diameter, in the number of sepals and petals, and in the depth of their straw colour.

"*Michelia lanuginosa* was sent to Kew from Sikkim by Dr. Thomson, when superintendent of the Botanic Gardens of Calcutta, about twenty years ago, and was planted out in the Temperate House about ten years ago. It now forms a small sparingly-branched tree, 12 feet high. It never flowered till the present year, when many buds formed in March, and which, owing to the cold and cloudy spring, never opened till May, by which time most had fallen off unopened. Wallich observes that the scent of the flowers is less powerful, and therefore more agreeable, than in the other common Indian species of the genus, of which the *Champaca* is the best known."—(*Ibid.*, t. 6179).

*TYPHONIUM BROWNII*. Nat. ord., Araceae. Linn., Monœcia Polyandria.—Spathes purple. "A very curious Aroid, belonging to a genus that extends from Western India to Australia and the Malayan Islands, and of which probably many species are still to be discovered in New Guinea and the eastern islands of the China sea. It is a native of Eastern Australia, extending from Port Jackson northward to Rockingham Bay in latitude 19° S., and, according to Mueller, varying in the length of the club-shaped apex of the spadix from 1 to 5 inches. As also in the breadth of the spathe. Under these circumstances it is not surprising that Robert Brown referred this to the *T. oxianse* (Arum oxianse of Roxburgh), a plant very widely spread in tropical and subtropical India, and which yet may prove to be a geographically-separated variety of this. *Typhonium Brownii* was flowered by Mr. Bull in April last from bulbs imported by him from Rockhampton in Queensland."—(*Ibid.*, t. 6180.)

*ERANTHEMUM HYPOCATERIFORME*. Nat. ord., Acanthaceae. Linn., Diandria Monogynia.—Corollas scarlet above and yellow beneath. "The genus *Eranthemum*, of which there are so many Indian, Pacific Islands, and Brazilian species, is comparatively scarce in Africa, where only six species have been hitherto detected, though no doubt many more await discovery. Of these the present is much the handsomest, and is indeed one of the most attractive of the genus. It is apparently confined to the west coast, extending from Acra to Sierra Leone, from which latter place seeds were received in 1870 from the Rev. Mr. Bockstadt, a very intelligent gentleman attached to the mission there, to whom the Royal Gardens are indebted for many interesting plants, and who has since fallen a victim to disease contracted in that pestilent climate. *E. hypocateriforme* flowered in the Royal Gardens in May of the present year."—(*Ibid.*, t. 6181.)

*ALLIUM MACROSTYLOIDES*. Nat. ord., Liliaceae. Linn., Hex-

*andria Monogynia*.—Flowers purple. "This is by far the most showy in its flowers of all the *Alliums*. It is a native of the limestone mountains of the south-east of France and north-west of Italy, and belongs to the large group of species in which the annual bulbs arise from a creeping perennial rootstock, which is covered by a dense coat of matted fibres."—(*Ibid.*, t. 6182.)

*COLUMELLIA OBLONGA*. *Nat. ord.*, *Columelliaceae*. *Lin.*, *Diandria Monogynia*.—Flowers yellow. "There are but two species known of the genus, and both are natives of the Andes, where, however, they have no wide range, being apparently confined to the Andes of Peru and Ecuador. *C. oblonga* inhabits an elevation of 9000 to 13,000 feet, and is very common in the heights above Quito. It was raised from seeds sent by Dr. Jameson to J. Anderson-Henry, Esq., who forwarded a young plant to Kew in 1870, which flowered in the Temperate House for the first time in January of the present year."—(*Ibid.*, t. 6183.)

*PEACH*.—*Dr. Hogg*.—"It is a very handsome high-coloured fruit, likely to take a high place on the exhibition table, as well as in the garden and forcing house. The following is the description of this variety in the new edition of Hogg's "Fruit Manual":—

"Fruit large and round, with a very distinct suture, which is deeply cleft at the apex. Skin thin but tough, lemon-coloured, dotted with crimson on the shaded side, and with a faint crimson cheek next the sun. Flesh yellowish-white, somewhat firm, but melting, with a rich, full, and sugary flavour, which adheres to the palate notwithstanding its fine bristleness; it is very deeply stained with red at the stone, from which it separates freely. Flowers large. Leaves with kidney-shaped glands.

"This ripens about the 10th of August, and is a very large early Peach. As an exhibition variety it will be in high repute on account of its size and remarkably full flavour; and for market purposes its earliness, size, and the ease with which it bears carriage, will render it one of the most valuable Peaches in cultivation. The tree is a very strong grower, remarkably vigorous and healthy, and it bears immensely.

"It was raised by Mr. Rivers from a French Peach he received from Brittany under the name of *Pêche Deniaux*; and first fruited in 1865."—(*Flor. and Pom.*, 3 s., viii., 185.)

## ROSE ELECTION, 1875.

### No. 1.—PERFUME.

NAME the Roses which you consider most agreeably scented, underline the twelve most esteemed, and limit the list to twenty-five names.

After thinking the matter over some time, this seems to me the most feasible plan. I am quite prepared for startling results, because perfume after all is like the preference for "Apples" or "Onions." I at one time thought of limiting the *Tes*. This to some might seem arbitrary. I therefore adopt the plan above, and ask all readers of our Journal interested in the matter to give me their lists as soon as possible.

### No. 2.

Name the best twenty-five Roses introduced since 1869, the *Marquise de Castellane's* year, including that year, and underline the best twelve of these.

I shall be glad to have replies to these two queries as soon as possible, though it is not my intention to close the poll until, perhaps, the middle of September, but of this due notice will be given.—JOSEPH HINTON, *Warminster*.

## STRAWBERRY CULTURE.

IN answer to "C. P. P." I beg to state that I find *La Grosse Sucrée* a first rate Strawberry, fully a week earlier than *Keens' Seedling*, good quality, ripens its fruit well, bears a good crop, and continues in bearing a long time. I have about a quarter of an acre in Strawberries, and I shall have this year upwards of forty sorts growing, and my experience so far for the best ten or twelve sorts would be as follows:—*Early Crop*—*La Grosse Sucrée*, *Keens' Seedling*, and *Princess Alice*. *Main Crop*—The *Amateur*, *Sir Joseph Paxton*, and *Ne Plus Ultra*; and for *Late Crop*—*British Queen*, *Elton Pine*, and *Victoria*. President, of course, I find to be a splendid Strawberry for main crop, also *Filbert Pine* for late crop; but one drawback is that they do not fruit well the first year. My practice is to plant-out runners in June and July in a bed of

well-prepared soil, at the distance of 1 foot apart, and transplant into their fruiting quarters during August and September, minding to choose suitable planting weather. By this means I always succeed in obtaining a large crop of splendid fruit on first-year plants. This year I gathered from sixty plants of *Sir Joseph Paxton* and *Ne Plus Ultra* 67 lbs. of beautiful fruit, such as would have made 1s. to 1s. 6d. per lb. in Covent Garden Market, and which I sold at 8d. to 1s. per lb. These were first-year plants, and planted last September. I am busy now preparing the land for planting, and my plants in the nursery bed cover the land. I shall have great pleasure in sending Mr. P. a few plants of *La Grosse Sucrée* if he wishes to give it a trial. A dozen nice plants can be sent by post for 4d. postage.—WILLIAM LOVELL, *Weaverthorpe, Yorks*.

## GARDEN EXPENSES IN THE SIXTEENTH CENTURY.

How little many of us know respecting the horticulture of former days! I wish that some enterprising spirit among us would furnish us with copies of old Gerard's "Herbal." Much am I interested by details of the olden time; and knowing others who are so, I have thought that the following extracts might be interesting to others of the readers of our Journal. They are extracted from the Hampton Court books.

"1529. Swete williams were purchased at liiij. the bushell. Gillavers slippes, Gillavers mynts, and other sweete flowers, at the same price. Crosealls at liiij. the c. Payd to John Hutton of London, gardener, for boulder of rosemary of liij. yeres olde to sett about the mount in the kynges new garden, li. vid. Payments to women weeding in the kynges new garden, every of them liij. the day. Similar price is paid for watterynge. Paid to Ales Brewer and Margaret Rodgers for gathering of 84 bushells of strawberry roots, primrose, and violets, at liiij. the bushell, viij. vid. Item, to Matthew Garrett of Kyngston for setting of the said rots and floures by the space of xx. days, at liiij. the day, vs. Appul trees and payr trees for the new garden, at vid. the piece, vi. c. Cherry trees at vid. the c. li. c. Young trees of oke and elme, five score to every hundred, at xli. vi. the hundred, to set in the kynges great orcharde, xxvj. Gatherynge of v. quarters of acornes to sow in the parks at Hampton Court, at liiij. the quarter; also of iii. quarters and i. bushell of hawes, slowes, and acornes at lyke pryse. Empeion of quycksetts for the tryangell at the mownte, 40 great setts of you, genaper, and holly, at liij. the pece. Woodebyne and thorne at vd. the c. Quyksett of white thorne to sett about the new parke next unto Hampton Tonne, at liij. liiij. the thousand. Amongst miscellaneuous items we find—A garden spade for the French priest to occupy at the mount, and for 2 showls as iron shod to fill the wheelbarrows in the masons lodge, price the pece vid.—TEMPUS FUGIT.

## GRAPE GROWING.

THROUGHOUT life we have found that the gardeners who produce good desserts are, generally speaking, held in high esteem by their employers, and have no difficulty in finding good situations for young men trained under their care. Some thirty-six years ago Mr. Davis of Oak Hill (a small place), East Barnet, was a noted grower of fruit under glass and an exhibitor. Some noblemen of England coveted and engaged his men. Mr. Meredith of Liverpool came to the front and won a great name as a Grape-grower for many years. Younger men have appeared at some of our great horticultural fêtes of late with Grapes surpassing in weight and appearance all former productions—in reality perfect marvels of culture. All honour to these younger men for their great success and example. For exhibitions both large bunches and berries of Grapes are necessary. For private and family uses moderate-sized bunches with large berries are perhaps the most desirable. The largest berries, I might say the best Grapes, I ever saw were Muscats grown on old Vines at West Ella, near Hull. The bunches were not large—I guess about 2 lbs. each—but more tempting and covetable fruit never fell under my eye.

Vineries may be erected as spans, half-spans, or lean-to's; and in any and all of such houses good Grapes may be grown. The construction of houses for this work is of less importance than the formation and composition of their borders; but on the score of cheapness and convenience I prefer span-roofed houses running north and south, so that their east sides have the morning sun and the west the afternoon rays.

If convenient, Vine borders should be made both inside and outside, and be connected by open arches, thus giving the roots freedom to run and feed in all directions within the limits of the borders. I say limits, for the better way is to confine the roots to their own border: if allowed to wander too wide or go too deep, who will predict success or permanent and satisfactory results? Vine borders should have hard bottoms and thorough drainage. The question of what kind of soil is best for Vines is a very wide one, and if a hundred successful growers were to attempt to answer it, perhaps no two of them would agree in everything. Sods from old pasture land well broken up and mixed with about one-seventh of its own weight of good stable manure will make a good border for Vines. Vines do better and continue to bear longer in soils rather heavy than light. Broken bones, lime rubbish, and charcoal in borders are helpful, but very good Grapes have been and may be grown without them.

Vines are generally propagated from eyes or buds with about half an inch of wood or stem on either side of the buds; but I have never seen or known any good reason given why cuttings, technically so called, are not used instead of eyes. There is more nutriment in a cutting to support the bursting bud than there is in the eye. Certainly the strongest Vine I have yet seen grown in one season was from a cutting; and I have seen as strong and eligible Vines for planting grown from the cuttings of the green wood of started Vines as from eyes. These green shoots were struck like *Verbenas* or *Fuchsias* in a cutting pit, and made excellent strong short-jointed canes. Vines, then, may be grown from eyes, or shoots, or green wood.

Of late years it has been found that Vines which have been planted in the borders as soon as the plants were large enough, have done better than those that had been grown one and two years in pots. This discovery is of considerable importance, for now anyone may strike his own Vines, plant them when 6 or 8 inches high, and see his vineyard filled with beautiful rods well ripened before the end of the first year. Amateurs as well as experienced gardeners are now doing this. Grape-growing has been simplified and made easy by intelligent men of late years.

Vines so easily raised or struck are now planted doubly thick, so that every second Vine—termed supernumeraries—yields a crop of fruit at the end of the second season from planting, and the permanent Vines are permitted to strengthen and grow for two years before they begin to bear. Four feet asunder is about the best distance the permanent Vines should be planted, and the wires should be at least 16 inches from the glass. If planted too close, or tied up too near the glass, there will be danger of the leaves being too crowded. Vines like plenty of light, warmth, air, and moisture. The beginner in Grape-growing, for whom these lines are penned, will learn more from experience and observation than from letters or treatises on Vine culture; but reading such treatises will tend to open his mind for observation.—A. PATTIGREW.

#### CATERPILLARS VERSUS GOOSEBERRY BUSHES.

I quite agree with your correspondent "BETA" respecting the crops of Gooseberries being unusually heavy this year, but as far as my bushes are concerned I have never been less troubled with caterpillars, for I have only seen them on two bushes, and I grow between twenty and thirty pots. In this neighbourhood Peas, Potatoes, Plums, Cherries, Gooseberries, &c., are sold by the pot. A pot of Gooseberries is 90 lbs. of fruit, and the pot-hampers average 10 lbs. each. I attribute the absence of caterpillars to having the bushes well dusted over with quicklime and soot in winter (which will partly confirm the remedy recommended by "BETA"). This I had done to prevent the birds picking-out the buds. The bushes were all covered over white, and likewise the ground underneath.

The old saying is "Prevention is better than cure," and if this prevents the caterpillars I shall certainly use it for the future; but at some future season perhaps the caterpillars may defy all our dustings, and put in an appearance with a determination to strip our bushes entirely of their leaves. Should they do so I have an infallible remedy to recommend, which I have used for years. The first time I saw it used was in a garden ten miles north of the Grampian Hills, where I served my apprenticeship, and I have used it with perfect success when necessary ever since. It is white hellebore powder.

Where there are a large number of bushes to go over I get about half a pound and mix in a bucketful of water, and

sprinkle the bushes all over until the leaves are quite wet, and it is sure death in about an hour after being applied. The alleged cure "BETA" saw adopted in the lake district—viz., that of letting all the weeds and grass grow up amongst the bushes, would not, I am afraid, be tolerated in a well-kept nobleman's or gentleman's garden, but the above remedy I can guarantee effectual and in no way unsightly.—J. ANDERSON, *Hill Grove*.

#### NON-POROUS POTS.

FROM experience I can say that *Camellias* will thrive in these, having had some very large trees of *Camellias* in pots made at the Sanitary Tile-works; they are glazed, and apparently impervious to moisture. The plants have been in these pots for years now, and are likely to remain for years to come. They are in perfect health, and begin to expand their blooms in November, and give us a regular succession to the end of April, and are the admiration of all who see them.

I believe that many plants suffer as much or more from injudicious watering than from most other causes. I think that watering is as little understood as any branch in our profession, and is frequently as carelessly performed. I for one should be glad to see from the pen of any of our leading men an intelligible rule to know when a plant in a pot should be watered.

I have often stood to admire the plants in our cottagers' windows in their jars and spoutless teapots. With what glee do they often tell me what a favour it was to obtain a slip of such a *Geranium* and such a *Fuchsia* from Mr. So-and-so's garden, and how anxious they are to know the kind of soil most suitable for their pets, and how often to water them. They need encouraging in the management of their window pets, and garden plots too, for some of them are ready to make the colour rise to one's cheeks to see and hear the interest they manifest in these things as the cottagers' show approaches.—OBSERVER.

#### THE BELLADONNA LILY.

*AMARYLLIS BELLADONNA* is a native of the Cape of Good Hope, from whence it was introduced in 1712. In Italy it has long been extensively cultivated, where it grows as freely as it does at the Cape. It was in Italy that the specific name of *Belladonna* was given, the generic name *Amaryllis*—a beautiful woman immortalised by Virgil in one of his poems—was given by Linnaeus. "It was," says Herbert, "the exquisite blending of pink and white in that flower, as in the female complexion, that suggested the common name in Italy, and to those lovely tints Linnaeus referred when he assigned the name of a beautiful woman."

This fine old Lily is perfectly hardy, and when planted in a row at the foot of a south wall, and left to take care of itself, it will flourish to perfection. It is only in a few old gardens where such rows are to be found; but wherever seen none can dispute their beauty. For extensive out-of-door decoration the bulbs should be planted in June, to be divided and the soil renewed about every six years.

*Belladonna* with *Guernsey Lilies* (*Nerine sarniensis*) are also extensively cultivated in pots for greenhouse and conservatory decoration. For this purpose bulbs are imported in large quantities annually, and are offered at a cheap rate by all the principal dealers; and although, as a rule, the flowers are not nearly so fine as are those produced by bulbs established in the open air, yet they create a charming effect when mixed with the foliage of other plants (for they have none of their own) in the autumn months.

Importations of these bulbs generally arrive about the end of the present month or early in September, and have the flower-scapes not only formed but ready to burst into beauty. On this account the vendors have good reason to urge on their clients the advisability of giving their orders early—advice which is good for vendors, growers, and bulbs, for if it is not heeded the flowers are lost or the bulbs do not arrive in the condition which a grower naturally expects. If he "orders early," however, he may generally depend on most of the bulbs unfolding their beauty shortly after they reach his hands, but it is seldom that all of them will do so, as they are at all times liable to delay in transit, and some of the scapes may be imperfectly developed. It is as well to recognise these contingencies when ordering the bulbs, and to order a few extra as a margin for a possible failure; that is the only safe plan to insure a display.

On the arrival of the bulbs they must be potted immediately. They must not be put aside for a few days for a more convenient opportunity, or the delay of these "few days" may be a fatal delay, for which most likely the sender of the bulbs and not the receiver will have unjustly to bear the blame of the failure. The bulbs may be potted one in a small pot or several in a large pot, according to taste and the effect desired. The soil may be any ordinary mixture of loam and leaf mould or cocoa-nut fibre refuse, and the pots should be placed in a greenhouse or frame. The bulbs should not be wholly covered with the soil, and they must be watered carefully and sparingly, for a plant without roots or foliage plainly requires but limited supplies of water. If a portion of these bulbs emit roots,

which all will not do, foliage will form and water must be increased to perfect it, and the plant then becomes established, and will, with proper treatment, bloom year by year.

For these established plants a sound pure loam is the most suitable soil. They should be kept cool, and be carefully watered during the winter; but in the spring, when the foliage is developed, they require to be watered freely. In May water must be withheld, and the pots should be placed in a hot sunny place, and have no water given them until August. A moist spring, dry hot summer, genial autumn, and a temperate winter are the conditions suited to this type of *Amaryllis*. When the pots are filled with roots the plants seldom require to be repotted, as they are kept in health and under command

Fig. 35.—*AMARYLLIS BELLADONNA*.

by a proper system of watering and temperature, which governs the periods of excitement and rest.

But it is in permanent broad rows in the open air that the fullest beauty of these charming Lilies is produced, and next to that, perhaps, are the spikes from bulbs imported in good condition and potted just at the right time. Their imposing and lovely-tinted flowers are always enjoyable whether growing or used as cut blooms for the decoration of vases, for which purpose they are admirably adapted. They associate perfectly with Guernsey Lilies, and both are worthy of cultivation and special attention at this period of the year.

The old variety of the Belladonna can be purchased at a cheap rate, and for cultivation in large numbers it is recommended. Its colour is a delicate silvery rose, and it is very fragrant. The spikes grow  $1\frac{1}{2}$  to  $2\frac{1}{2}$  feet in height, and are surmounted by six to twelve delightfully-scented flowers. Handsome hybrid forms are also offered, varying from pure

white to purple and crimson-striped flowers, all of which are worthy of cultivation notwithstanding that they are destitute of foliage at the principal period of their attractiveness.

By drawing attention to this popular species of *Amaryllis* at the present time it is hoped that a seasonable hint may be conveyed, leading to a more certain enjoyment of these charmingly-tinted and imposing autumn flowers.—W.

#### THE WHITE WILLOW (*SALIX ALBA*).

"SIR," said an old medical practitioner, "Providence points out that the bark of the White Willow yields an antidote for intermittent fevers; it flourishes where they most prevail." We will not dispute the logic of that inference, but it leads us to observe that on high grounds as well as in the low-lying well-watered nooks of many parks we have noticed how highly ornamental they were rendered by groups of this Willow. Yet

this Willow is associated with sadness, and was so even in the days when the Israelites were captives in Babylon. "It is a sad tree," says Fuller, "whereof such who have lost their love make their mourning garlands, and we know what exiles hung up their harps upon such doleful supporters. The twigs hereof are physick to drive out the folly of children. This tree delighteth in moist places, and is triumphant in the Isle of Ely, where the roots strengthen their banks, and lop affords fuel for their fire. It groweth incredibly fast, it being a byword in this county that the profit by Willows will buy the owner a horse before that by other trees will pay for his saddle. Let me add, that if green sabs may burn before a queen, withered Willows may be allowed to burn before a lady."

Let London say more about its uses—"In the north of Europe the bark of this tree is used for tanning leather and for dyeing yarn of a cinnamon colour; and the leaves and young shoots are given to cattle in a green state, or dried like the twigs of the Birch, and laid up for winter fodder. The inner bark, like that of Scotch Pine, being kiln-dried and ground into a fine flour, is mixed with oatmeal and made into bread in seasons

handles to rakes, hoes, and other implements, and as faggot wood for fuel. The timber of the trunk is used for various purposes. It weighs in a green state 70 lbs. 9 ozs. per cubic foot; half-dry, 51 lbs. 14 ozs.; and quite dry, 32 lbs. 13 ozs.; so as to lose more than one-half of its weight by drying, during which it loses a sixteenth part of its bulk. It is found an excellent lining for stone-carts, barrows, &c. It is used in turnery, millwork, cooperage, weather-boarding, &c.; and the stronger shoots and poles serve for making hoops, handles to hay-rakes, clothes props, and various other instruments and implements, and the twigs are employed in wickerwork. The bark, which is thick and full of cracks, is in nearly as great repute for tanning as that of the Oak; and it is also used in medicine, in the cure of agues, as a substitute for cinchona, though it is inferior for both purposes to that of *S. Russelliana*. As fuel the wood of this tree is to that of the Beech as 808 is to 1540; but the old bark makes a very useful fuel, and both it and the wood will burn when green, in which state the wood is said to give out most heat. The charcoal is excellent for use

in the manufacture of gunpowder and for crayons. The ashes are very rich in alkali, containing more than a tenth part of their weight of potash. In France a fine blood-red colour is

Fig. 25.—THE WHITE WILLOW (*SALIX ALBA*).

Fig. 27.—Male Catkin.

of great scarcity by the inhabitants of Norway and Kamtschatka. The branches of the tree are used as stakes, poles,

obtained from the bark, and that of the young tree is used in the preparation of leather for making gloves.



Fig. 28.—Female Catkin.

"It is justly remarked by Mr. Gorrie that it adds much to the value of the *Salix alba* that its propagation and culture are of the most simple description, and that it will grow luxuriantly in most soils where other trees make but slow progress. According to Sang it will thrive well in high and dry grounds; and if planted in the grove manner in tolerably good soil, perhaps no other plantation except Larches would give so quick a return for the trouble and expense of planting."

The flowers are in catkins, the males by themselves and the females by themselves. Examined by the microscope, especially at the time of pollen-shedding, they are very beautiful.

Although no admirer of Willows generally, Gilpin makes one exception in favour of the White Willow. "Some," he says, "I have thought beautiful and fit to appear in the decoration of any rural scene. The kind I have most admired has a small narrow leaf, and wears a pleasant light sea-green tint, which mixes agreeably with foliage of a deeper hue. I believe botanists call it the *Salix alba*." We have seen many so made use of; and as this Willow will flourish on a dry soil, though its growth there is not so fast as in wet ground, if placed forward on projecting parts of plantations and dark-foliated Beeches at the inner parts of the retreating portions, the effect is greatly increased.

This Willow is so generally pollarded that few of our readers know it in its beauty, yet we have seen many fine specimens and have heard of far more. Dr. Johnson visited one whenever he went to his native place, Lichfield. It grew close to the premises where was his father's parchment manufactory. Its trunk at the base was 15 feet 9 inches in circumference; it was 49 feet high, and its fifteen branches overhaded 4000 feet of surface.

Then there is, or was a few years ago, the still finer "Abbot Willow" at Bury St. Edmunds growing on a part of the abbey domains; the height 75 feet, the circumference of the trunk 18 feet 6 inches, and the branches shaded a circle of more than 200 feet circumference. There is a portrait of it in Strutt's "*Sylvia Britannica*."

### BASKET PLANTS.

BEFORE referring to the plants I may state that I have confined myself to what I consider plants suitable for suspended baskets. The basket-like vases, made of split wood and set in the conservatory or flower garden, I regard as true vases, therefore I speak of them as such. Baskets are very various in form and design, some being made of earthenware, some of wood, and others of wire, the last being my favourites. Their form and material of construction are simply matters of taste, but I would suggest that the baskets be made with a greater view to the well-being of the plants to be grown in them than to their own ornamentation. When the plants grow luxuriantly they almost or entirely hide the baskets; then, what is the advantage of those which are costly over those which are plain? Sufficient means of drainage should in every case be provided, especially as regards the close-sided bowl-shaped sorts, for when the woodwork is open, or wire netting used, nothing short of very bad filling could insure bad drainage. Line the inside of wire baskets with a layer of sphagnum, within which put the soil; when filling and planting is finished, take a pair of shears and clip off evenly the ragged sphagnum. As regards the baskets most suitable for the parlour, I would recommend the close-sided kinds that have little drawers at their base for holding the spare water, and thus preventing it from spilling on the floor. These drawers should be emptied daily when the parlour is being cleaned and before the flowers are watered again, otherwise an overflow and spilling may be the result. The soil to be used just depends on what the owner has convenient; indeed, I think many foolish composts are advised for plants. Some people recommend two parts of loam with one of dung for a class of plants, and others may use some peat and leaf soil besides for the same subjects, which in both cases may equally luxuriate; then we are at a loss what to choose.

I find that most plants grow well in good loam—turfy, if to be had—and a little leaf soil or light decayed manure added. Peat I do not consider a decided necessity for any genus of cultivated plants exclusive of Ferns and Orchids, and even many of them grow well without it. Rhododendrons are considered peat-needing plants, but the Messrs. Lane & Sons, England, grow hundreds of thousands of these in the very best of health, and the most floriferous condition, in the pure sandy loam of Berkhamstead Common, where there is not a particle

of peat. Leaf mould is a good substitute for peat, and it is nourishing, open, and liked by most plants.

I am no advocate for mixing sand in the compost; in fact, I partially agree with Mr. Croucher, the great succulent-plant grower, who considers sand in many cases a plant-killer. It is useful in propagating for very young plants, and for some Ferns, Lycopods, Orchids, Heaths, &c.; but for general plant culture I depart from the opinion and practices of my apprentices and journeymen masters, who thought its presence a necessity. Clayey soil should not be used, or anything that is clammy or binding. Make the soil sufficiently fine by chopping or breaking between the fingers, and avoid the use of the sieve. Cast away worms, stones, and sticks. Place some of the roughest of the material or a thin scattering of sphagnum over the crocks to keep them clean and in good working condition.

Examine the baskets every afternoon in order to supply their wants as regards water, and use rain water in preference to any other. If the soil becomes very dry steep the basket in a tub or pail of water, otherwise the inner portion of soil may be quite dry even after frequent applications from the watering-pot. If the watering be done in the morning, and a hot sunny day ensuing, the water soon dries up without doing much good; but if done in the afternoon it will remain in the soil till next day at least, and then give full benefits to the plants. When water is given give it abundantly, and do not scruple about using the syringe to clean off dirt or insects, and to refresh the plants. About 4 p.m. is a good time for syringing.

The arrangement of the plants in the baskets is entirely a matter of taste; but care should be taken to have a good permanent plant in the centre, with dwarfier plants or trailers surrounding it. Little specimens of Myrtles, Indiarubber Plants, stiff Ferns, Palms, Crotons, Dracenas, Cyperus, Acalypha tricolor, Zonal Pelargoniums, or, in fact, anything there is to spare may be used as a centre.

**ABUTILON VEXILLARIUM VARIEGATUM.**—A free-growing greenhouse plant with pretty yellow-blotched leaves and numerous short-stalked red flowers, the visible portion of the corolla being bright yellow. This plant may be used advantageously in large baskets amongst other plants, as alone it would have a naked appearance. It is readily increased from cuttings of the half-ripe wood. Small plants of this *Abutilon* make fine edgings for flower beds if pegged down, and in this way they are much used in the London parks.

**ACHIMENES.**—No one who has seen the immense baskets of these at Chatsworth, England, the seat of the Duke of Devonshire, could fail to be surprised at their splendour. There in the Victoria Regia house, and suspended from the roof over the spacious tepid water tank, are large wire baskets filled with *Achimenes* that grow with such dense luxuriance as to form specimens 6 feet in diameter, one mass of flowers, and completely enveloping from view both top and bottom of the baskets. Such samples of culture, however, are too clumsy for the general public, and I will therefore give the method practised by the fine old London firm of Osborn & Sons, that now directs attention to house-furnishing or floral-decorating. Ten or 12-inch-wide wire baskets are chosen, and the *Achimenes* planted therein in the bowl and between the wire meshes, the plants being previously started in pots. The baskets are then suspended in a warm greenhouse, and daily syringed in the afternoons. As the plants grow they are pinched to induce laterals, which are also pinched, and this pinching is continued till a perfect circular thicket nearly 3 feet through is produced, when they are permitted to come into full bloom. They are stove or warm greenhouse plants, propagated as freely as *Verbenas* from cuttings; but the usual method is by means of their scaly tuberous "roots." Completely rest them in winter, and start them in heat the following spring. A few good sorts for basket work are *Longiflora alba*, *L. major*, *Mauve Queen*, *Vivicans*, *Stella*, *Argus*, *Leopold*, *Edipae*, and *Pink Perfection*.

**ESCHYNANTHUS.**—Most of the cultivated species of these may legitimately be grown in baskets in the stove, and they thrive best in a moist shady nook. I have seen *Æ. Lobbianus* cover the most of the back wall within a stove in Messrs. Veitch's Nurseries, Chelsea. They are very free-flowering, having long-tubed or club-shaped fleshy flowers of a red or crimson shade of colour. Their leaves are also fleshy and stems pendant, and in their native habitats they are of epiphytal character, being chiefly found growing on trees. They like an open spongy soil, and they are easily increased from cuttings. I like to see them sole occupants of small baskets. A few of the best are *Æ. speciosus*, *Lobbianus*, *longiflorus*, *bicolor*, *javanicus*, *cordifolius*, and *pulcher*.



**ASTYSTAIA.**—When at Kew some years ago we had a very fine basket plant of this genus, but I forget its specific name. It was an herbaceous plant with fragile stems that depended some 12 or 15 inches below the baskets, and thickly laden with whitish funnel-shaped flowers. We grew it in the tropical aquarium and stoves.

**BEGONIA GLAUCCOXYLLA SCANDENS.**—This is decidedly one of the best of plants for growing alone in a suspended pot or basket. I prefer the pot. It produces quite a compact drapery of green, depending for some 20 inches below the pot, each branch being tipped with a cluster of bright red waxy flowers. The finest specimen I ever saw of it was at Mr. Such's nursery, South Amboy, N.J.; but Mr. Taplin complained to me that it did not flower so freely as he would wish, but always kept on growing. This is quite contrary to my experience of it, as we had a plant of the same from Such's some two years since, and so determined is it to bloom that it is with difficulty we can obtain a cutting from it. It is partial to a stove or warm greenhouse temperature. This is the only Begonia that I can confidently recommend for this purpose, for no matter how fine the numerous other species and garden hybrids may be for pot culture, they are unequal to this one for basket work.

**CISSUS DISCOLOR.**—A climber or trailer of good constitution, its leaves being extensively coloured. It is an excellent subject for large baskets in stoves, but for window or cool-house work it is not very satisfactory. It propagates so readily from cuttings that every joint will make a plant. It requires partial rest in winter, and at no time to be subjected to a temperature under 40° or 45°, to be cut well back late in autumn or winter, and started in a brisk temperature in spring. Under ordinary circumstances the best way to grow this plant is to train its shoots on strings along the inside of the sashes, and then leave it till it has nearly finished growing, when the strings may be cut and the vines trained around a trellis.—W. F.—(*American Gardener's Monthly*.)

### HERB GARDENS AND NO BEES!

THE market gardens around the metropolis have long been famous, not only for producing the best vegetables possible, but for producing them in abundance. To do this it is necessary to have a great amount of experience, and the necessity of such experience has resulted in certain vegetables and herbs being grown almost exclusively in certain districts. At one time an area lying between Kensington and Brompton was largely devoted to the cultivation of Lettuces and Cauliflowers, more especially early ones, for which there has always been a great demand, and which always command remunerative prices. The rapid growth of the metropolis, which encroaches year by year most perceptibly upon the green fields and open spaces of the suburbs, or the cheaper and more rapid transit by rail, has done away with market gardens so near the centre of the town; the earliest Cabbages, Cauliflowers, Lettuces, &c., are now sent from Cornwall and the Scilly Isles, and it is only the more distant market gardens which retain their original characters. Mitcham is one of these: its open fields, lying fully exposed to the summer sun, are still covered each year with fragrant herbs and flowers, although the greater part of the acreage is devoted to medicinal or aromatic plants, yet there are greater breadths of savoury pot herbs, and sweet herbs for culinary use. The cultivation of these latter is here, however, not so extended as it is in the market gardens of Fulham, where Lemon and common Thyme, Sweet Basil, Marjoram, and many other aromatic ingredients for stuffing or soup are largely grown, especially for sale at Covent Garden Market. On hearing of acres of Lavender, Peppermint, &c., visions of rural beauty, peace and plenty, naturally arise, and if we do not expect to see a perfect arcadia in the village with such sweet surroundings, at least we expect homely comfort. Mitcham, with its acres of beautiful common, extending as far as the eye could reach, with its hundreds of acres of aromatic plants, presented no unusual picture of rural prosperity; in fact rather the contrary. It scarcely presented, that is to say as far as the cottages and their entourages were concerned, the pleasant appearance of an ordinary English hamlet. There was an air of untidiness, a want of that knowledge which makes the best of everything, apparent even to a stranger. Most of the cottages had gardens, not very extensive ones perhaps, but large enough to grow flowers, herbs, and hold a stand of bee hives; yet the plot of ground was in general not at all, or very indifferently, cultivated, and a prolonged tour

of inspection around the place did not show us a single bee hive! Hundreds upon hundreds of acres of aromatic plants only harvested in full blossom, and not a single bee! Acres upon acres of common land, where the air was scented with the perfume of the wild Thyme, lying in beautiful purple patches at the feet, and not a single bee! During all our walk of many hours about the place we never heard the happy hum of this busy worker for man's benefit. Are the villagers of Mitcham asleep that they do not see what a mine of wealth lies before their doors? Are they so indifferent to worldly prosperity that they do not care to increase their means, and thus increase the comfort and happiness of their homes? or are they so little versed in rural economy as never to have heard of the profitable keeping of bees? Neither the exteriors, nor the glimpses we caught of the interiors, of these cottage homes of England bespoke too much comfort, and yet fields full of blossom, each blossom bearing in its nectary the drop which might become honey, were wasting their sweetness, if not on desert, yet on unprofitable air, while the workers amid all that sweetness toil for the miserable pay of the rural labourer, and never see that they might obtain comfort, if not plenty, by availing themselves of those resources which nature has spread so plentifully around, and of which anyone might avail themselves by the exercise of the very smallest amount of trouble and care.

Agricultural labourers cannot keep fowls nor rabbits; such live stock is forbidden by harsh masters on pain of dismissal, and they do not keep bees. The most inveterate money-grubber who ever breathed would surely find no excuse for forbidding a man to erect a stand of hives at his cottage door; he could not lay an embargo upon the nectar which fills each blossom of Bean or Clover. There could be no inducement to petty larceny to find food for bees. The industrious insects find their own sustenance, they rifle the wild flower of its sweets, and what they take from the farmers' fields is never known and never missed. Should prolonged wet or cold weather compel man to give them a little food during winter, he does not return them one-twentieth part of that which he has taken during summer. Yet there is scarcely a hamlet in England where the number of the hives could not be counted upon the fingers of one hand. We live in the midst of fertile fields. Our Gorse and Heath-covered commons might prove a mine of wealth for the industrious poor living in their vicinity; yet the Gorse flowers more or less from the commencement to the end of the year, the Heather blossoms unprofitably on the plain, they distil their sweetness to the winds alone, save for the modicum of nectar gathered by the few wild bees who seek from them their store of food.

We pay thousands of pounds annually for honey and wax garnered by the careful French peasants, while such money paid for the fruits of home industry would elevate the social status of the rustic toiler, and add to the prosperity of the whole country. All money spent upon imported food is a confession of weakness; a nation which does not feed itself dare not resent an affront, a sudden stoppage of foreign supplies would leave the bulk of the people in a state of starvation.

With thousands of acres of wild heath and woodland, only utilised to provide game for the sportsman's gun, and which do not help one iota towards cheapening food for the people, we go on from year to year; we import our beef and mutton, we import our poultry and eggs, and we import our honey!—(*The National Food and Fuel Reformer*.)

### NOTES ON VILLA AND SUBURBAN GARDENING.

**CARNATIONS AND ZINNIAS.**—Taking plants for ease of culture and an abundant return in the way of flowers, there is scarcely anything more worthy of recommending to an amateur's notice than the above. The different varieties of Asters are also commendable, but there is not that abundance of bloom that the two former give. From a packet of mixed seed of *Carnations* there come numerous double flowers of more or less merit and perfume; and even some of the single ones—some of which must be expected—are thoroughly useful in the vase or flower-stand when out; and they all have the merit of lasting in this way a much longer time than many flowers of a choicer character. Twelve months ago last March I advised an amateur to purchase of a well known seedman a packet of *Carnation* seed at 6s., and he sowed the seed under two handglasses on a bed of made-up soil. In due time the seedlings came up, and were pricked-out on another bed till they were large enough to finally plant out on a properly prepared bed consisting of at least 18 inches in depth of common garden soil, with fresh loam

and rotten manure added; they became well established before winter, and made thoroughly good plants. In the spring of this year they threw up so many flower stems, and produced such a numerous quantity of buds on each, that I advised the thinning-out of both flower stems and buds to a great extent. The result has been a mass of a variety of bloom of more than ordinary merit. Now, instead of staking every shoot, the plan adopted was to place stakes round the bed in one row through the centre. Fine string was then connected in different courses one with the other, and the flower stems fastened to the string with matting; therefore, instead of seeing a forest of sticks to mar the effect, which would be objectionable, nothing of the kind was seen, as the string was quite invisible, and the flowers well supported.

Of the old-fashioned flowers called the *Zinnias* too much can scarcely be said in praise of them as decorative border plants. A packet of seed produces a good percentage of beautiful double flowers of great brilliancy and variety of colour. It is perhaps more of an autumn-blooming plant, but its mode of culture is so simple and yet so successful that I must plead for this plant to be taken in hand more than it is. A packet of seeds costs from 2s. 6d. to 8s. 6d. They may be sown at the same time and in the same manner as the Aster and Stock, and the after-treatment is also similar. If the plant itself is staked the individual flowers support themselves. Give it a rich soil and the flowers come fine.

Of *Asters* there are several so-called varieties, which after all are very similar; but there is a selection called Betteridge's Quilled which are worth growing, and would be more so if the habit was not so straggling. They do not carry enough foliage to look well when growing. Among dwarf *Asters* there is the one called the *Chrysanthemum* which does not exceed 1 foot in height—a capital sort for small beds and for pots, and it does not look amiss in a ribbon border.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

This is now a busy time in this department, for even in a moderate-sized garden a man is constantly required amongst the trees. It is well to be very careful in gathering all sorts of fruit, although when work is pressing the earliest sorts that keep but a few weeks is not handled quite so carefully as sitting eggs. That intended to keep for months must be carefully handled; a little dry hay should be placed in the bottom of the basket, and the fruit carefully placed in by hand. We collect all fallen Apples and Pears at once, as the largest proportion of the fruit contains maggots. The fruit is ready for gathering as soon as the pips become brown at the core. It is a good plan to rake the ground under all standard and wall trees. We have a fancy that the fruit is of better flavour when the ground is stirred and kept free from weeds. An explanation of this may be found in the fact that the leaves of weeds absorb the heat of the sun's rays and do not give it back, whereas the ground, especially if stones are on the surface, absorbs and gives back much heat; for this reason it is very undesirable to sow or plant late crops on the fruit borders. All such crops ought to be removed by the end of July, and the borders should be kept quite neat and clean afterwards. We generally go over Apple and Pear trees at this time and stop any shoots that are taking the lead, removing at the same time superabundant growths.

It is also necessary to look over Peach and Nectarine trees on the wall. All loose shoots ought to be nailed-in to allow of the sun acting upon the fruit, and, besides, it looks slovenly to see the young growths flapping about on the trees at this season. During the present hot weather the garden engine should be freely used until within a week of the time the first fruits would be ripe. Perhaps this last bit of advice may be taken with some qualification, for in soils suitable for Peach culture spider is not so destructive as it is with us, and if the trees are quite free from this pest the syringing may be discontinued earlier in the season.

Just a word about packing Peaches. We use boxes deep enough to take two layers of fruit. On the bottom of the box place a thickish layer of cotton wadding, then place each fruit on its bottom upon a square of tissue paper, then wrap each up and place a layer of them closely together in the same position in the box; two ledges should be placed in the box on which to rest the second bottom. The same process should be gone through with the upper layer. If the fruit has to be sent a distance so that it is likely to be turned over, some paper shavings ought to be placed over it. A strip of cotton wadding may be wrapped round each fruit if particular care is necessary, such as sending it to an exhibition.

We have finished planting out the Strawberries. The runners were ready two weeks ago, and would have been put out at that time if the ground had been ready. It gives the plants a considerable check if they become root-bound in the small pots. Sometimes, when the ground was not ready for the plants before

the end of August, they have been potted in larger pots with the best results.

### VINETTES.

The Vines in the early houses are very nearly denuded of their leaves, and when this happens so early in the season it is difficult to prevent them from starting into a second growth, which is very undesirable. The Vines do not usually start so freely at the time they are required to do so when unseasonable growths have been made. Even if the Vines are in good health and well covered with leaves it is best not to allow secondary growths to be made after this time of the year, therefore we pinch them quite out as soon as they are formed. The object now is to have the buds at the base of the laterals to become plump and thoroughly matured, for until this is done the work of the season is not completed. If the borders inside are dry they must be well watered, and the leaves kept free from insect pests by syringing. As many persons plant their vinerias in the autumn it may not be out of place to say a word about the best varieties to plant when it is intended to ripen the fruit in May or June. There is no difficulty in selecting a black variety, as no other Grape is at all comparable to the Black Hamburg for use during the summer months. The white companion to it has not yet been introduced to the public, and the raiser of such a Grape would be deserving of the very highest honours. Buckland Sweetwater is very much thought of by some, and when it is well grown the flesh is firm and the flavour is much esteemed by some good judges. As it has been grown at Loxford Hall no other white Grape except the Muscat is preferred to it, and until something else is introduced it will be the best for exhibition purposes. Next to it in appearance comes Foster's White Seedling: this is more generally useful even than Buckland Sweetwater, and is steadily working its way into popular favour. Golden Champion, and the more recent sort Duke of Buccleuch, are superior to either of the above if they can be grown; but the Vines are so delicate in constitution that they are not adapted for any but the most experienced cultivators, although a case of their doing well sometimes occurs where no special care has been taken of them. Then the fruit does not keep well, and the skin is so thin that the fruit is injured by draughts of cold air when other sorts would not suffer. But perhaps the most certain, and as regards flavour it is second to none of the above, is the old Royal Muscadine. This sort is as popular in France as the Black Hamburg is in England. In the late houses it has been necessary to look over the bunches to remove some decayed berries. It ought always to be borne in mind that the bunches should be well thinned out when it is intended that the Grapes are to hang late.

### GREENHOUSE AND CONSERVATORY.

We are now busy preparing plants for autumn and winter flowering. *Chrysanthemums* are now being tied and trained into the proper shape to form dwarf compact specimens, presenting heads of blooms regularly arranged. To do this the plants must be pinched and tied-down from the first. Our best specimens are formed from two-year-old plants, although as a rule the best blooms are obtained from cuttings struck in the winter or early spring months, and under good management the plants can be grown of large size. Exhibitors who grow for the metropolitan *Chrysanthemum* shows are required by schedule to have the plants with one stem only, except at South Kensington, where there does not seem to be any clearly defined rule, so that a number of plants have been placed in one pot so as to increase the size of the specimens. At the same time it is very doubtful if there is much advantage gained by the system of crowding three or four plants together. The experienced exhibitor very soon finds out the best treatment adapted to each variety. For instance, growing on old specimens causes the plants to flower earlier, and Venus, Lady Slade, and Princess Teck would be grown from the old plants; and Mrs. George Rundle, George Glenney, and the early flowering free-growing varieties from cuttings struck in January. Each plant will now have numerous growths, which should be tied closely down as soon as possible. Ours have already been tied; the shoots will grow-up again rapidly, but each shoot will have a bend in it about 6 or 9 inches from the flower bud when it forms, and at the time of training the flowers into their proper position the growths will bend anywhere. If the growths had not been tied-down half the shoots would snap off at the joints.

Pompons are regularly trained all through the season, and no sticks are required to support the flowers. Many persons who do not wish to exhibit cut flowers, wish to have a few good examples for their own enjoyment. It is now time to "set" the blooms. At this time a very small bud may be observed at the end of each growth, three shoots will also be formed close to the bud. If these are allowed to grow the bud will be barren, but if they are pinched-out the bud will grow and form an immense flower, some of the varieties as large as a breakfast-cup. Three flowers are quite a sufficient number to be grown on one plant. As soon as the buds are set liberal supplies of manure water will be necessary.

Zonal Pelargoniums are certainly a great boon to us for autumn

flowering; they make a very fine display until the Chrysanthemums are ready, and there is very great variety in the colours—pink, rose, scarlet, and crimson being represented in interminable shades; and then how easily they are grown! Anybody with a notion of potting a plant can grow them well, and what is perhaps as much in their favour as anything is their entire freedom from insect pests.

Hardwooded plants require to be watched for spider and mildew. Heaths are very liable to the attacks of this parasite. Erica Massonii, and all similar sorts with that peculiar cobwebby appearance on the leaves, suffer severely if not taken in time. The best way to apply sulphur is to lay the plants on their sides over a large sheet of paper and thoroughly dust the leaves and stems until they are quite covered with the powder. If the plant is then gently shaken the superfluous sulphur will fall on the paper and none will be wasted. If the plants are dredged, in an upright position the sulphur falls into the pot, and if it is not removed the roots are injured by it. On one occasion we were recommended to apply sulphur to destroy moss on the surface of some Camellia pots; it killed the moss and some of the plants, and others were much injured.

The Hyacinths will soon be potted for the earliest flowers. The bulbs should be potted as soon as they come in from the nursery, and the pots plunged somewhere in the open ground in leaf mould, or cocoa-nut-fibre refuse is good if it can be obtained. It will be time enough to pot the bulbs for late flowering about the end of October.—J. DOUGLAS.

### TRADE CATALOGUES RECEIVED.

Messrs. Sutton & Sons, Reading.—*Catalogue of Bulbous Flower Roots, Plants, &c.*  
Messrs. S. Robertson & Co., 33, St. Andrew's Square, Edinburgh.—*Descriptive Catalogue of Dutch Flower Roots.*  
William Paul, Waltham Cross, London, N.—*Catalogue of Bulbs, Camellias, &c.*

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

DUNDEE.—August 28th, 29th, and 30th. Mr. B. MacKellar, 51, Reform Street, Sec.  
WAKEFIELD.—August 29th. Mr. A. Holmes (Parish Clerk), Sec.  
CHIPPENHAM.—August 31st. Mr. Alfred Wright, Sec.  
DEAL AND WALKER.—August 31st.  
BATH.—September 1st and 2nd. Mr. B. Pearson, 13, Milcom Street, Sec.  
GREAT YARMOUTH.—September 2nd. Mr. S. Aldred, Hon. Sec.  
NITON AND WHITEWELL.—September 2nd. Mr. R. W. Berry, Hon. Sec.  
ALEXANDRA PALACE (International Fruit Show).—September 2nd, 3rd, and 4th. Mr. A. McKennie, Sec.  
SOUTH OF SCOTLAND.—To be held at Dumfries, September 3rd. Mr. J. Blount Dinwiddie, 11, Buccleuch Street, Dumfries, Hon. Sec.  
CRYSTAL PALACE COMPANY.—Autumn Fruit and Flower Show, September 7th to 9th.—Sec. E. W. Wilson. Bees and their appliances, September 21st to 23rd.—Sec. J. Hunter.  
GLASGOW.—September 8th. Mr. F. G. Dougall, 167, Canping Street, Sec.  
KILMARNOCK.—September 10th. Mr. M. Smith, 11, King Street, Sec.  
STAMFORD (BURGHLEY PARK).—September 15th and 16th. Messrs. Johnson and Laxton, Hon. Secs.  
LONE SUTTON.—September 22nd and 23rd. Mr. J. W. Swain, Sec.  
ROYAL HORTICULTURAL SOCIETY OF ABERDEEN.—September 23rd. Mr. A. J. Bennie, 123, Union Street, Aberdeen, Sec.  
ALEXANDRA PALACE (Potatoes).—September 29th and 30th. Mr. F. McKinnlay, 23, Upper Thames Street, London, Hon. Sec.  
JERSEY.—Autumn October 15th. Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

ES\* We request that no perishable fruits be sent at present, as our authority for naming fruits is absent for a time.

BOOKS (St. Vincent B.).—To contain descriptions of all the varieties of florists' flowers would require a very large volume. Our "Florists' Flowers" contains small selections. You can have a copy free by post if you enclose five postage stamps with your full address.

VINE AND PEACH SHOOT DISEASES (H. F. Bradley).—We never saw trees so abandoned to disease. The Peach shoots are ruined by the turtle scale (*Aspidiotus conchiformis*). Bruise the shoots, without touching the leaves, with ammoniacal liquor from the gasworks. The Vines have been ruined by want of water and mildew. Water freely and thin out all the burst berries. We fear they are in a hopeless state for this year.

SALINE MANURE FOR POTATOES (C. L. D.).—If you refer to p. 184 you will see that the quantity of each salt for an acre is specified. We certainly should not mix them with farmyard manure, but sprinkle them on the surface just before the first hoeing.

MAY QUEEN GERANIUM (W. S. B.).—We think the specimens are of that variety, and as it is not a Tricolor that would disqualify the exhibit.

GEOTHERAS (J. P. A.).—The flowers were entirely faded. If you can propagate the pink sport it will be an accession, but we fear that you will find it not permanent.

WHITE EVERLASTING FLOWERS.—"A. B." finds they become rather brown in drying, and wishes to know if this can be prevented. If not, they may, before being used for decoration, be dipped into a weak solution of bleaching powder, which may be obtained of any chemist.

SNOWFLAKE POTATO.—Mr. C. Turner, gardener to H. Beaver, Esq., near Workop, says that 1 lb. of seed has produced 60 lbs.

FUNGUS (S. A. Brennan).—If you compare your plant with a specimen of the true Mushroom you will find the two to be very different species. For instance, your fungus has no ring round the stem, a character which is always present in the Mushroom, and the gills of your plant run down the stem instead of suddenly twisting up near its insertion as in the Mushroom. Your fungus is *Agaricus prunellus*; it is edible, and generally highly esteemed. (*Pineapple*).—The scientific name of the disagreeable fungus known as the "Wood Witch" is *Phallus impudicus*. We know not whether it is poisonous or not, but judging from its horrible and disgusting odour we should think it hardly worth a serious trial.

THRIPS ON VINES AND FERNS (R. H. F., York).—Yours is a very bad case, and you must have prompt recourse to remedial measures. In the first place remove the Camellias, Azaleas, Pelargoniums, and hardy Ferns, and stand them in a shady place out of doors, and there syringe them thoroughly, applying the solution to every part. When you have taken the plants from the vinery then syringe heavily the Vines, walls, woodwork, &c., with soft-soap water of a strength of 5 osts. per gallon, with a sixth part of tobacco water added. Do this on two successive evenings, and repeat the dose weekly for a month. By that means you may destroy the thrips which are devouring your Vines, and which will certainly do them permanent injury if not at once eradicated. The plants may remain in the open air so long as they are safe from frost and heavy autumn rains. Use the solution at a temperature of 100° and but little sediment will be left behind, and what little there is may be removed by a thorough washing with pure water very early the following morning. If the Grapes are ripe we would advise you to cut most of them with 6 inches of the wood attached, and insert in bottles of water and keep in a cool room. They will keep as well there as on the Vines in the state yours are. Better, however, that a portion of the crop be sacrificed than that the Vines themselves be destroyed by the myriads of insects affecting them.

FRUIT TREES FOR HOUSE WALLS (Selly Park).—A south-east aspect is not very good for Peaches or Nectarines. Violet Hâtive Peach and Violet Hâtive Nectarine are most likely to succeed. A suitable Apicot is Moorpark. The best Plums are Green Gage, Transparent Gage, and Coe's Golden Drop. The soil will suit the whole, it being efficiently drained; but we should plant with some good turfy loam three parts, and one part each of old mortar rubbish and well-rotted manure thoroughly mixed. The south-west aspect would suit a Pear—Made Louise, and the north-east would answer for Pear Jargonelle or Morello Cherry.

VINES FOR GREENHOUSE (Idem).—Three suitable kinds are Black Hamburgh, Madresfield Court, and Foster's White Seedling. If you can have a border of 8 feet or so inside the house in which to plant the Vines, the front wall being arched to allow of the roots passing outside, we should advise that in preference to all outside borders. Particulars for forming a border were given last week, page 167, in answer to "A. M. B."

STRAWBERRIES FOR SANDY SOIL (An Irish Subscriber).—Keens' Seedling, Sir Joseph Paxton, President, and Duc de Malakoff are with us the best upon light soil, also the one you name, Bilton Pine. They, upon such soil, ought to remain only two years, the ground being well trenched and manured, and the runners planted 2 feet apart every way as early in the season as they can be obtained. Of the four kinds named President does the best. Particulars of culture you will find given from time to time in "Doings of the Past and Present Weeks." The Birmingham brush-rake is a trade article; you will require to have one made.

WINTERING LANTANAS (Idem).—They succeed admirably if kept in a greenhouse with only water sufficient to keep the wood fresh, otherwise keeping them dry, and in February or March prune them well in, leaving a few eyes upon each shoot of last year's growth, and report when they have broken freely, having shoots about an inch long, and removing most of the old soil, return to the same size of pot, and keep rather close and moist, sprinkling overhead frequently until the potting is recovered, then afford a light and airy position. Young plants struck now will winter safely in a light airy position in a greenhouse, with water only to keep them fresh.

SEEDLING CYCLAMEN CULTURE (New Subscriber, Brighton).—The plants should be taken up carefully and potted separately in 8-inch pots, just covering the eorn with soil, or about a quarter of an inch deep, and after potting place them in a cold frame, keeping close, moist, and shaded from sun. If you have heat—a moist genial atmosphere as that of a hotbed or cool stove—they would be the better placed therein, and continued in it until they are advanced for flowering; but as you may not have those conveniences, continue them in the frame, admitting air moderately, and in October remove to the greenhouse. A compost of two parts turfy loam, half a part each leaf soil and sandy peat, with a sixth of silver sand, well mixed and made rather fine, but not sifted. Provide good drainage, and shift into larger pots as they fill with roots, but keeping them under rather than overpotted, and well supplied with water.

GREENHOUSE (Idem).—We could not select a greenhouse for you, but you may do so by referring to our advertising columns; or if you were to write to one of the horticultural builders stating what you wish, you would have designs and estimates submitted for your approval.

NERTERA SEAPANOIDES AND SIBTHORPIA EUROPEA VARIEGATA CULTURE (A Subscriber since 1856).—Both require to be grown in sandy peat soil with one-third of yellow loam, and to be in pans well drained so as to allow of the water passing away freely. Water very freely, never allowing to become dry, and keep in the shade, and winter in a cold frame or a cool greenhouse. In summer, or after May, the plants being well hardened off, success is best attained by growing on a north border or the northern side of rockwork, where they will be screened from direct sun and have the benefit which free exposure and the coolness with moisture afforded by the northerly aspect.

Both are very pretty, the former especially from its bright-coloured berries which studded over the moss-like carpet foliage are very effective.

**VINE LEAVES BROWNED** (*One in Fear*).—The air of the house has been, stagnant and dry, consequently the leaves are very severely scorched. Water the paths daily, and keep the top ventilators open all day and night.

**VINE LEAVES** (R. C.).—There was no mildew on the leaves you enclosed. They were healthy, and as the ventilation is well attended to you need only to keep the air moist by watering the paths daily.

**IVY ON WALLS** (*Della Bocco*).—The Ivy would not make the house walls damp, but contribute to their dryness, as may readily be observed by anyone when rain is falling, the rain being kept from the wall by the Ivy leaves throwing-off the water. We do not, however, advise Ivy for a south wall, partly from its doing best in the shade, and from the south aspect suiting other plants as *Eucallonia macrantha*, which has fine, evergreen, glossy foliage, and red flowers in summer; *Garrya elliptica* is also a fine evergreen and flowers in winter. For the north aspect no plant is so suitable as Ivy. For thickening the hedge under tall Elm trees the common Beech or Hornbeam would be most suitable, especially the former.

**TAMARIND** (A. B. C.).—The East Indian (*Tamarindus indica*), is a large spreading tree of about 60 feet in height, and the West Indian (*T. occidentalis*), is equally spreading, attaining to a height of 40 feet. They may be grown in this country in a large lofty house affording the temperature of a stove. Two parts sandy loam and one part leaf soil is a suitable compost. We do not know of its being fruited in this country, few having accommodation for so pretentious a plant.

**GATHERING SEEDS BEFORE RIFE** (W. W.).—All seeds are best left on the plants until they are ripe, but some plants do not ripen all the seeds at once; hence, as in grain, some are out when comparatively green but with considerable stem attached, and those seeds are as good, in fact germinate more freely and sooner than those left to mature upon the growing plant. The seed in such cases requires to be fully formed and kept in the husk or pod until hardened. Frenches are easily raised from seed, sowing the seed in light soil in spring, and placing the pots in a hotbed, the seedlings will be up in a few days.

**CLIMBERS FOR UNHEATED GLAZED VERANDAH** (J. A.).—You do not say what the aspect is, but we presume it is south, and advise accordingly *Bignonia capreolata*, *Berberidopsis corallina*, *Bridgesia spicata*, *Ceanothus asperus grandiflora*, *C. Gloire de Versailles*, *Jasminum revolutum*, *Lardis-bala biterata*, *Lonicera flucosa*, *Paeffera corulea*, *Solanum jasminoides*, *Buddleia globosa*, and *Stantonia latifolia*. All are evergreen, but we should not fail to have some deciduous, as *Glycine sinensis*, *Oleaster* of sorts, *Tea* and *Noisette* Roses, and for its fragrant *Chimonanthus fragrans*. A *Magnolia grandiflora floribunda* would do famously.

**SELECT CLEMATIS** (F. C.).—There are so many really beautiful varieties that we can scarcely make a selection of three of the best. White, C. Mrs. Quilter or Henry; blue or purple, C. acotiledon or nigricans. There is no "scarlet," but C. *vitellina rubra grandiflora* has bright claret-red flowers.

**SOWING ANNUALS FOR SPRING FLOWERING** (A. S.).—To flower early they should be sown from the middle to the end of September, but exceptions are *Silenes* and *Saponarias*, they requiring to be sown early in August, *Nemophila insignis grandiflora* last week in August, *Collinsia verna grandiflora* second week in August, *Limnathes Douglasi* first week in September, *Laethia californica* fourth week in August, all pricked-out in good light soil, shaded, and duly watered, moving with balls to the beds in autumn. *Myosotis sylvestris* ought to be sown in June and grown-on.

**REPOTTING LILIUM CANDIDUM** (*Idem*).—When the stems are yellow, the plants having died down, they should be turned out of the pots, all the soil not occupied with roots removed, and fresh compost employed for repotting, which may consist of three parts turfy loam, one part each leaf soil and sandy peat, and a half part each of old cow dung and silver sand, providing good drainage. They should be only moderately watered until the plants commence, and be kept from frost, but cool. We do not know of a method of keeping Cucumbers, only to pickle them.

**CUCUMBERS UNHEALTHY** (C. P.).—Your plants are much infested with green and brown aphides. Fumigate with tobacco or tobacco paper, and early the next morning syringe with warm water in which soft soap has been dissolved at the strength of 8 ozs. to each gallon of water. This will kill the insects, and the plants may afterwards be kept clean by regular syringings of pure water.

**NAMES OF FRUITS** (*Connaught Subscriber*).—Apples: 1, Not known; 2, Trumpington. The Plums were all decayed before we had an opportunity of examining them. (W. G.).—No. 1 is French Codlin; 2 is unknown to us. It is not Red Wine. It is a valuable acquisition on account of its earliness, and though not equal to Early Harvest and Irish Peach in quality, still ripening so early as the third week of July, it is valuable. Can you tell us anything of its origin?

**NAMES OF PLANTS** (*A Lady in Cheshire*).—*Alnus glutinosa laevigata*, Fringe-leaved Glammy Alder.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### POULTRY FARMING.

I HAVE repeatedly seen in reply to correspondents in your "Letter Box," and also to those in many of your contemporary papers under the above heading, that it has been tried in many places but was always attended with loss. My cognomen, as at the foot, has no doubt met the eye of many of your subscribers, amongst which are customers of mine, and who would, I believe, like to see into the proofs of the profit or loss of this business; and if through your columns you will allow those who have given their whole study to the subject—I mean as their only employment, and who have persevered against all difficulties—to give their experience, and if not too personal, an abridged copy of their Dr. and Cr. account, for I have kept mine for two years to a halfpenny, I shall be glad to submit mine in your first issue of September for the perusal and comparison of your readers. I

am sure it is a matter of interest to all poultry-keepers, and if you would kindly give publicity to these few remarks we shall be able to give healthy recreation and profitable employment to many who are now only deterred through fear of loss.

I have hatched and reared over 1400 head this year, and 1800 in 1874; and having, as I observed a few lines back, kept a daily and constant account, am in a position to give reliable and undoubted testimony as to whether it is always attended with loss or not.—GALLINACULTURIST, *Hampton-in-Arden*.

## BIRMINGHAM SUMMER SHOW.

AUGUST 20TH TO 28th.

THIS year this Show was vastly ahead of the *fiasco* of last season. The poultry were under a splendid marquee, and the Pigeons under a very long canvas-covered shed, in the grounds of Aston Park. In fact the weather made it the *beau ideal* of an outdoor show. There were nearly 800 entries of poultry and 600 of Pigeons. The management was ostensibly under a Committee, but we saw no one but Mr. Watts and the Secretary taking any very active part in the work, excepting one or two attendants. As before, we suppose it was really Mr. Watts's Show. The food was given by Messrs. Spratt, and we thank them, as without it the birds would have fared ill, for every pen was provided with Indian corn for their first meal on arrival—a most unwise thing. Billett's pens were used, and Drewitt kept his eye upon the arrangements, the bare idea of sawdust being put into the pens making him very active. Some of the classes were very large and should have had extra prizes, but such would be contrary to the ideas of the management, as we find where the entries were small the first prize was either withheld or the class extinguished. With such attendance, such a fine entry of birds, and liberal subscriptions, it ought to bear a handsome surplus; hence we are surprised at such meanness. The schedule is by no means a heavy one—there is far more show about it than anything else. For instance, where the first prize is a cup the value of the cup is paraded in addition to the first prize of £3, or whatever it may be, when in reality the first prize is a myth and is simply a false display of figures.

In *Dorkings* the first cockerel was a fine dark bird, good all round; second neat in style, and the other noticed birds mostly large and good. Pullets were not so fine as usual. The first was a fine bird, but she has one crooked leg; second was fine in frame, and third good. The first and second Silver-Greys were capital, and looking up a bit; third a fair White. In hens the awards were the same. The first *Cochin* cockerel, Buff, has at last gone ahead; he is a good square bird; second lighter, third a trifle mealy; highly commended (Lingwood) should have replaced him. In pullets, first a fine bird in full feather, second very fine all over, third similar. Messrs. Burnell and Lingwood also showed beauties. In Partridge, first a fine bird, but leggy and rather narrow; second better, except in hook; third wanting in style. In pullets all want pencilling; Mrs. Tindal's highly commended bird being the best. In White cockerels, first a big fair bird, second good but small, third leggy. Pullets were much better, the winners being great beauties, rest not so good. In Blacks the first pullet was the only good one, and she was a real beauty. *Brahmas* (Dark), first and second were well-known birds of rare colour, looking as though rest would improve them; third a fair bird, certainly not so good as highly commended (Hamilton), which will make into a beauty. As in the pullets we failed to find any really extraordinary birds. The cup pullet was in our judgment a poor one, and we failed to find the merit she possesses; second a fair bird, better in marking; third good. Surely the cup must have been intended for the next pen (Hamilton), a far better bird. Mr. Kendrick's was the best-marked of any; Miss Pennant's will also make a fine pullet. In Lights the cup went to a fine bird, very forward, good in leg, shape, and hackle, but a trifle yellow; second smaller, neat shape, but a bad hackle; third good in leg and comb, but also a bad hackle. Neither of these were so good as very highly commended (Dean), commended (Dean), or Mr. Dean's 224. In pullets a splendid class. First was a very good bird all over, but the second was better, her size and hackle were superior, and other points as good; third a good bird, not so white. Among other highly deserving birds were very highly commended and highly commended Dean, Haines, Petter, and Watson. In *Spanish* first was a fine lobed cock, second beautiful in face and lobe, third also very good. Hens were a grand lot, first being in the best order; second, third, and Messrs. Beldon and Allsop's capital. This was a grand class. Among *Game* the first Brown Red was very good, though not yet dubbed; the cup Brown Red pullet was also a beauty, superb in colour and style, but we really think the third Black Red was better, being almost perfect. The first Pile was a good leggy bird of capital quality, second a good Duckwing, third also good but too short in head. In the undubbed class the usual winners took the prizes, first being a rattling yellow-legged Pile. *Hamburgs* were small classes. In *Spaniels* first was a Gold getting out of feather; second a splendid Silver, which we preferred; and

third a chicken. In hens the winner was a grand Gold, second a good Silver, and third a fair Gold. In Pencils the cock class was minus, the catalogue stating that there was "no entry;" but this we know to be untrue, as we know of three being made; it, however, saved the Committee the prize money. In hens first was a Golden pullet, and a very poor one too; second Mr. Judson's well-known hen, worth fifty of the winner; and third a Silver. In *Polands* first cock was a splendid fellow, and far ahead. The winning hens were exquisite Silvers. In *Houdans* first was a splendid bird, very dark and good all through; second moderate, third good. Mr. Morris's bird was the finest of all if we except a very large comb. In pullets Mr. Morris again showed the finest, a great beauty. First was superb in colour and size, second fair, third very dark and good, legs black. *Crows* were a poor lot. In the Variety class first was a grand Malay in each class, second cock a Brown Leghorn with a very bad comb, third a far better White. In hens the White Leghorn was second and the Brown third; the latter was a fine bird with a good earlobe, but her colour was decidedly improper. In Game *Bantams* the cup Black Red was very good in colour and style, as was the first Pile, although we preferred the second. Pile hens were capital also. In the Sebright class the first cockerel (Silver) was a beauty, but he would be better for blacker lacing. The cup hen was a gem. Blacks were a good lot, and the Pekins shown were in nice order. White Ducks were a fair lot, but Rouens not so fine as we have seen. In Blacks first were the smallest, but second the best colour. In Fancy Ducks first went to Autumalis, second to Kasarkas, and third to Malagas. This was a fine class, all being noticed. In the Adult classes the winners were mostly well-known birds of the past season. Dark Brahma hens were a good class, as were Lights, but most of the birds were out of feather.

In Pigeons a splendid lot. The cup for Carriers went to a grand wattled Black, second grand in eye, and third a nice even bird. The first Dun was grand in eye and beak, second a good bird rather bad in colour, third a Blue. Hens were superb in both classes, the first Dun being rather flat in wattle. In young birds first was a beauty and most promising, being grand in beak. The Pouter cup went to a fine Black, second and third good Blues. The White hen was good in limb and girth. Barbs were a good lot; first a Red, second a Black, and first a Yellow in hens. The first young Barb we did not like, it being too long in beak. Almonds were a fine lot, as were Balbs and Beards, the first being a nicely-out Bald. Rosewings, Redbreasts, and Mottles were a fine class, the winner being a Redbreast Muff wonderfully out. In Fantails the winner was an easy first, being one of the best in head, neck, and carriage we have seen. In Jacks first was a Red, second a splendid Yellow with a better hood. In Turbits first was not good in beak and inferior to the second, and third Yellows. Mr. Dew's Silvers were clearly ahead, his unnoticed being, however, the best in the class. Nuns were a nice lot. The first English Owl was a beautiful headed Silver. In Africans, the pen (Fulton) next the winner was far ahead in size and beak, but unnoticed; third was not good in beak. Dragons were grand classes, as were Antwerps. The first Swallow was a delightful Yellow. Archangels were better than usual, and the Variety class excellent, first being a lovely Turbiteen, Mr. Ludlow's birds of this variety, his Damascenes and Blondinettes, being very perfect and interesting.

**DONKEYS.—Coloured.—Cockerel.**—1, T. C. Burnell, Michaldevor, Hants. 2, R. W. Beach, 3, L. Pilkington, Gatesara, Liverpool. **do.** W. H. King; W. H. Robson; L. G. W. Stratford; J. Glesell. **do.** W. H. Robson. **Pullet.**—1, J. Walker, Spring Mount, Rochdale. 2, Henry Lingwood, Needham Market. 3, A. Darby, Little Ness, Shrewsbury. **do.** R. W. Beachy; Rev. G. K. Bailey; F. C. Burnell; L. G. W. Stratford; Rev. A. Bartram. **c.** L. Pilkington; W. H. King; J. Gee.

**DONKEYS.—Any other variety.—Cockerel.**—1, T. C. Burnell. 2, J. J. Walker, Kendal. 3, L. G. W. Stratford, West Malling. **do.** Miss E. Williams; Miss Pasley. **do.** W. Eoe, jun.; L. G. W. Stratford. **Pullet.**—1, W. W. Rutledge, Shortland, Kendal. 2, W. Eoe, jun., Newark. 3, Miss E. Williams, Henthly Barrow. **do.** Miss M. A. Hayne; L. G. W. Stratford; W. W. Rutledge. **c.** L. G. W. Stratford.

**DONKEYS.—Any variety.**—1, T. C. Burnell. 2 and 3, L. G. W. Stratford.

**COCKS.—Cinnamon or Buff.—Cockerel.**—1, Mrs. A. Tindal, Aylesbury. 2, C.

1; Mrs.

Henry

Mrs. A.

Lamb,

F. S. J.

Green

Thurrah,

Arson.

S. W. R.

Wright,

rar; L.

nee; F.

c. T. A.

Hel.—1,

Rev. G.

Lenc;

G. W.

Almar,

Atorth.

Warrell, Spalding. 3 and 4 R. Fulton, etc. W. Baker. As, W. Baker; R. Warrell; R. Cant.  
 Pouter.—Black or Blue-eyed.—Cock—1 and Cup. H. Pratt, Hampton-in-Arden. 2, R. Fulton. 3, J. Baker. As, R. Fulton; E. Beckwith.  
 Pouter.—Any other colour.—Cock—1, L. W. Watkins. 2 and As, R. Fulton. 3, H. Pratt.  
 Pouter.—Black or Blue-eyed.—Hen—1, R. Fulton. 2 and 3, E. Beckwith.  
 Pouter.—Any other colour.—Hen—1, L. & W. Watkins, Northampton. 2, R. Fulton. 3, E. Beckwith. As, H. Pratt; R. Fulton.  
 Bantam.—Cock—1, R. Fulton. 2, H. Yardley. 3, C. G. Cava, Spalding. As, R. Fulton. 4, E. Burton. Hen—1, R. Fulton. 2, W. J. Hyde, Filleton Kington. 3, H. Yardley. As, J. O. Adams. 4, E. Burton.  
 Bantam.—Young.—1, E. Burton. 2, E. Beckwith. 3, F. Smith. As, C. G. Cava. 4, W. Watkins.

Chickens.—1, H. J. M'Brade, Gifford. Light.—1 and 2, E. T. Hardman, Strabane, Omagh. 3 and 4, E. T. Hardman.  
 Bantams.—1, E. T. Hardman. 2, S. M. Moore, Londonderry.  
 Hamburgs.—Gold or Silver pencilled.—1, R. A. Macdonald. 2, Miss J. E. D. Smyth, Drumahoe, Londonderry. Gold or Silver-spangled.—1, J. C. Cornehill, Londonderry.  
 ANY OTHER VARIETY.—1 and 2, Miss L. D. Smyth.  
 Cocker's Ouse.—1, J. Young, Newnham, Londonderry. 2 and 3, W. M'Neil, Granahaw, Londonderry.  
 Ducks.—Rouen.—1 and 2, W. Simpson, Londonderry. Aylesbury.—1, F. Robertson. 2, S. M. Moore.  
 Geese.—White.—1, S. M. Moore, Goolinga.—1, S. M. Moore. Grey or Mottled.—1, W. Simpson. 2, T. H. Graham, Bridge End, Co. Donegal. Goslings.—1, T. H. Graham. 2, D. Glen. Any other variety.—1, G. A. Smith. 2, T. A. Bond.  
 Turkeys.—1, C. A. Smith. 2, E. T. Hardman. Poult.—1, E. T. Hardman. 2, C. A. Smith.

### HOLMFIRTH SHOW OF POULTRY, &c.

THIS was held in the cricket field on August 1st. It was thought that the Show was in advance of its predecessors both in the number of entries and in the quality of a great proportion of the birds exhibited. We may take exception to the *Water-fowl* and the *Dorkings*, which were not up to the mark. The cup for the best pen was awarded to a very good pen of *Spanish*, and the cup for the best pen of *Pigeons* to a capital pen of *Carriers*. The *Hamburgs* in most of the classes were very good, both adults and young. The same may be said of the *Brahmas*, particularly the chickens. Some very good *Games* were exhibited, and with a little more age some of the chickens will be difficult to beat.

GEN.—1, J. Addy, Hey, Upperthong. 2, J. Roberts, Cliff.  
 Ducks.—Aylesbury.—1, J. Hey, Holey. 2, A. Thewlis, Maltham. Rouen.—1 and 2, J. Hey. As, G. H. Hirst, Maltham. Any other variety.—1, A. Thewlis. 2, E. Brook.  
 TURKEY.—1, W. H. Barber, Hinchiff. 2, W. Lodge, Lamma Wells.  
 DORKINGS.—1, E. Stringer. 2, W. Burtrey, Carr, Upperthong. Chickens.—1 and 2, J. C. Arkwright, Holmfirth.  
 SPANISH.—Black.—Cup and 2, J. Batty & Co., Nether Hillhouse. Chickens.—1 and 2, J. Batty & Co.  
 COCKER-ORPINGTON.—Cinnamon and Buff.—1 and 2, Moore & Cartwright, Holmfirth. Chickens.—1, J. Batty & Co. 2, J. Caldwell.  
 COCKER-ORPINGTON.—Any other variety.—1, W. Caldwell. 2, Moore & Cartwright, Holmfirth. Chickens.—1, J. Beaumont. 2, T. Blakey, Victoria, Holmfirth.  
 BRAHMA POUTERS.—1, Moore & Cartwright. 2, B. Lockwood, Malthamhouse. Chickens.—1, J. Batty & Co. 2, Moore & Cartwright.  
 HAMBURGERS.—Golden-spangled.—1, G. Haigh, Molesey Green. 2, Broadhead and Booth, Holmfirth. As, Moore & Cartwright. Broadhead & Booth. Chickens.—1, W. Bentley, Birdriding. 2, Moore & Cartwright. As, Broadhead and Booth.  
 HAMBURGERS.—Silver-spangled.—1 and 2, Broadhead & Booth. Chickens.—1, Broadhead & Booth. 2, J. P. Floyd, Holmfirth. As, Broadhead & Booth; Moore & Cartwright.  
 HAMBURGERS.—Golden-pencilled.—1, J. A. Brook, Holmfirth. 2, W. Bentley. Chickens.—1, W. Bentley. 2, G. Woodhead, Brocksheol. As, J. A. Brook.  
 HAMBURGERS.—Silver-pencilled.—1, J. C. Arkwright. 2, J. Hirst. Chickens.—1, Moore & Cartwright. 2 and As, J. C. Arkwright.  
 HAMBURGERS.—Black.—1, W. Bentley. 2, Moore & Cartwright. Chickens.—1 and As, W. Bentley. 2, Moore & Cartwright.  
 POLAND.—1, J. Batty & Co. 2, Moore & Cartwright. Chickens.—1 and 2, J. Batty & Co.  
 ANY OTHER VARIETY.—1, J. Batty & Co. 2, W. Bentley.  
 BELLINGHAM.—1, W. Bentley. 2, D. Heyworth & Co., Holmfirth. As, R. Beighton, Clough, Thurnstonland; J. A. Brook; J. Batty & Co.  
 GAME.—Cock.—1, W. H. Pease, Shepley. 2, J. A. Brook.  
 ANY VARIETY EXCEPT GAME.—Cock.—1, Broadhead & Booth. 2, Moore and Cartwright.  
 ANY VARIETY.—Hen.—1, Moore & Cartwright. 2, W. Bentley. As, E. Batty, Liphill Bank.  
 GAME.—Black-breasted and other Bant.—1, W. H. Pease. 2, J. A. Brook. Chickens.—1, W. H. Pease. 2, W. Batty.  
 GAME.—Duckwings and any other variety.—1, W. H. Pease. 2, Moore and Cartwright. As, J. A. Brook. Chickens.—1, W. H. Pease. 2, D. Littlewood, Newmill.  
 GAME BANTAMS.—Black-breasted or any other Bant.—1 and 2, J. Roberts, Holmfirth. Chickens.—1, J. A. Brook. 2 and As, R. Beighton.  
 GAME BANTAMS.—Duckwings or any other variety.—1, E. Stringer. 2, G. Beaumont. Chickens.—1, G. A. Quarby, Holmfirth. 2, E. Stringer.  
 BANTAMS.—Any other variety.—1, J. Batty & Co. 2, J. Whitworth, Holmfirth.  
 PIGEONS.  
 CARRIERS.—Cup, J. Batty & Co. 2, A. Thewlis.  
 POUTERS.—1, A. Thewlis. 2, Arkwright & Brook, Holmfirth. As, J. Batty and Co.  
 TUMBLES.—1, A. Thewlis. 2, B. Boothroyd.  
 FANTAILS.—1 and 2, A. Thewlis.  
 JACOBINS.—1, J. Batty & Co.  
 BARS.—1, J. Batty & Co. 2, Arkwright & Booth. As, E. Lockwood, Malthamhouse (3).  
 OWLS.—English.—1, A. Thewlis. 2, W. Kaye, Shepley. As, Arkwright and Brook.  
 COMMON DOVECOCK.—1, W. Bower, Parkhead. 2, J. H. Turner, Somersfield.  
 ANY OTHER VARIETY.—1, J. Batty & Co. 2, G. Swallow.  
 BARBITS.  
 SPANISH.—Buck or Doe.—1, N. Lockwood, Moorcroft. 2, F. Brown, Holmfirth.  
 COMMON.—Buck or Doe.—1 and As, W. H. Sykes, Holey. 2, J. Batty & Co. 3, W. Blakey, Victoria, Holmfirth.  
 CATS.—Any variety.—1, Mrs. Heap. 2, W. Wright. 3, G. W. Blye, Holmfirth. 4, W. Holmes. As, V. McNish, Holmfirth.  
 JUDGES.—Mr. J. Dixon, Bradford.

### MEIGLE POULTRY SHOW.

THE tenth annual Exhibition of this Society was held on Wednesday, 18th of August. As this Show is the first in the district which offers prizes for chickens, it is of considerable interest to breeders, especially in a season such as this has been, when each is anxious to see if his neighbour has been as unlucky as himself. The classes were, with a few exceptions, not par-





into a deep moult. In Light Brahmas two really grand pens of chickens won first and second. They were really good all round. *Hamburgs* were all classed together. Fair Silver-spangles were first, and very nice Golden-pencilled second; the pullet very good in markings. In the Variety class a grand pair of Polanders were first, and a nice pen of Malays second. In *Bantams*, Game, Mr. Mayo won first with a nice pair of Black Reds. In the next class Blacks and Silver-laced won the prizes.

Rouen Ducks were good in colour and bills, but lacked size. A nice pair of Aylesburys won, but the drake's bill was a shade too dark, still Mr. Martin picked them out cleverly. In the variety Duck class Mr. Kelleway sent a nice pair of black ducklings, and won first. Geese were good, the first going to Greys, second to Whites.

Pigeons were small classes, but the quality good. Mr. Spencer of Hereford won in Carriers and Ponters with fine Blacks and Blues. In Pouter cooks a good Red won; second going to a capital White. Tumblers were fair, the prizes going to Almonds and Balles. The first pair of Antwerps were the only good pair, and in Jacobins extremely neat Blacks won. Fantails were good, but the Variety class contained the cream. There was pen after pen really good. The Judge picked out two good pairs of Barbs from the collection for the prizes, and highly commended nearly the whole of the rest of the class.

Rabbits were good, seventeen good Lops putting in an appearance. The ears of the first-prize specimen measured 21 inches in length and 5 inches in width, while the measurements of the second were 21 by 4½. Himalayas were good, Silver-Greys fair, and in the Variety class a beautiful White Angora won first.

We published awards last week.

Messrs. W. J. Nickols and P. H. Jones have resigned their connection with the Crystal Palace Poultry Show, the former as one of the Honorary Secretaries, and the latter as one of the Committee. These gentlemen have now undertaken to act as Honorary Secretaries of the forthcoming Show of Poultry and Pigeons at the Alexandra Palace. Mr. O. Howard continues Secretary of the Crystal Palace Show.

### THE JACOBIN.

THIS age is very generally termed one of progress, but I think it is evident that in many matters it has a downward tendency. There seems a desire all over to destroy and rebuild in a new form, and this also applies to fancy Pigeons. The Jacobin has been destroyed to a great degree, and one of the last and ugliest additions which English breeders have given this bird is the mane. The bird is named after an order of friars who wore a hood or cowl to protect their shaven heads; but there is no mention of the friars wearing a mane as well, or anything of that appearance on their dresses. Moore, to whom so many refer, does not name this appendage, which he would have been sure to do had the bird in his day possessed such. He describes the bird minutely, and tells us, among other things, that it is the smallest of all Pigeons. Is it so now, or is the true bird to be found in this realm? Not that I know of; for many years I have not seen a real Jacobin. "WILKINSON RACON" truly says "the fancy is an historical thing, not an affair of the last few years." Fortunately there are a few of us who do not intend to allow the "historical thing" to die out so long as we have our pen and our Journal conserved to us.

I saw the other day, in a work now publishing, two cuts of the head of this bird—one of the new stamp, showing the mane in grand style; the other evidently a get-up for the sake of contrast, a perfect caricature of the once elegant little Jacobin. I never saw a Pigeon answering the appearance of the latter cut. Oh, shades of Moore and Sebright! The Jacobin was a small, gentle, soft-feathered, elegant bird, exotic looking in every sense of the word. Now, the bird bearing that name in this country is a coarse, bold, strong feeder; he will fly at large, and provide for himself in the streets of a village, as I have seen. "WILKINSON RACON" has, I think, hit the mark very well, bringing to our remembrance the Mottles. The finest birds I have ever seen were light mottled, nearly white, and mottled slightly with red, flights and tail always white. Why discard them? I think the English breeders have put a cross into the Jacobin for the sake of colours to get the solid red, black, &c., and the consequence has been that the birds now are short in feather, large in girth, and coarse all over. The word "smallest" in Moore's account does not, I think, mean short, but thin. The true Jacobin is the smallest bird in girth I ever handled; in fact, while in the hand it felt like a bunch of feathers, long and tapering from the shoulders, long flights and tail, and of by no means a robust-looking habit. Small as the African Owl is, the Jacobin should not be larger in the hand. I have had this bird in hand so fine in girth that my thumb and middle finger almost met round the shoulders of the bird.

An old fancier (Mr. Hill) now long since gone, who lived in Leith, obtained from a Dutch captain a pair of Yellow Jacobins

from which he produced a large number of young birds. They were all of this type, rather large-looking on the floor, but in the hand a mere bunch of feathers. They had no mane, and for hood and chain were perfection. Such are not seen now. It is quite absurd to tell us that without the mane we cannot get the hood and chain. We had it before the mane was introduced, and we shall no doubt have it again if by no other means than importations. The Jacobin has been indigenous to other lands than ours, and from its native country we must import it before we can show the true bird bearing all its original characteristics. —J. HUIE.

### RABBIT HUTCHES.

BEFORE purchasing your stock of Rabbits it will be well to provide a place to keep them. For the common Rabbit pens partitioned-off in some outhouse or "court," either above ground or sunken, are most generally in use, but for the fancy varieties hutches are by far the most preferable; in fact, perfect success in the development of the Lop-eared variety can be attained under no other system of management.

The hackneyed saying which has appeared in nearly every work on Rabbits, that "any man can make a Rabbit hutch," is very far from true. I grant that most any man can make a box in which a Rabbit may be confined, but a box and a hutch, in my estimation, are two very different articles.

A very good substitute for a breeding hutch may be made out of a shoe box, by partitioning-off 9 or 10 inches of the small end, leaving an opening in the partition 6 inches wide, and 6 or 7 high at the back end. The front of this apartment should be tight, and hinged independent of the door of the larger apartment. This latter door should be of wire or wire netting, and hinged on top or at the side.

One of the simplest styles of plain box hutches is illustrated in the accompanying engraving (fig. 29). This is 8 feet long

Fig. 29.

16 inches high, and 20 inches wide, the corner posts projecting 2 inches below the floor of the hutch in front, and 1 inch behind, thus giving the floor a little descent, so as to carry off the water. The door A is swung from the top on a screw or pivot, and is held up by a pin or hook, D. A partition, either fast or sliding, is shown at C, shutting-off a space 10 inches wide for a breeding or nesting pen, a door, E, hung on hinges opening into it. A hole should be made in this partition about 6 inches in diameter, for the ingress or egress of the doe. It would be more satisfactory to our young friends to make the front of the large

Fig. 30.

apartment of lath or of wire (see fig. 30). The floor should project at the back from a half to three-quarters of an inch, and a space of one-quarter of an inch be left between the floor and the back of the hutch. A small tin or zinc gutter may be tacked to the under part of this projection, letting one end be a little the

lowest. All the liquid drainings of the hutch may thus be caught in a pail or basin. Three or four of these hutches may be placed one above the other, and one pail serve for all. A hutch for the buck, and also for young Rabbits after weaning, may be built the same as fig. 80, only leaving out the partition, and making the whole front of lath or wire.

Hutches built in this way are within the reach of nearly everyone, and answer as good a purpose, if kept well cleaned, as those more elaborately and expensively built. A very great improvement to the hutch shown in fig. 90 is an extra or double floor. The bottom floor should be made of tongue and grooved boards painted, or else of plain boards covered with zinc; the upper floor of lath, with the edges rounded, or of three-fourth-inch round rods, placed about one-half inch apart, and elevated 1 inch above the lower floor. This arrangement, if well covered with litter, makes a very warm as well as dry hutch. Of course these conveniences and others may be added by the fancier to any extent his purse and fancy may warrant. The ornamentation may be as elaborate as he pleases. I have heard of slate floors, polished mahogany doors with porcelain knobs, and fixtures, &c., to match, but none of these conduce to successful breeding. Just as fine Rabbits may be raised in such a hutch as we illustrate in figs. 29 or 30 as in a more expensive one. The main requisites in a hutch are cleanliness, which will keep the inmates in health, and convenience for feeding, cleaning, and examining the young. Keeping these in view, a simple hutch is as favourable to success as a more expensive one.—(*American Fanciers' Journal*.)

### LIVERTON BIRD SHOW.

AN Exhibition of Cage Birds in connection with a horticultural show was held on the 14th inst. in a marquee in a field near to the Liverton Mines. The Exhibition was a good one. The awards:—

#### CANARIES.

**BELGIANS**.—*Clear or Ticked Yellow or Buff*.—1 and 2, Baxter & Spence, Newcastle. *c. E. Winter*, Galsborough (3); W. H. Wright, Whitby.  
**NORWICH**.—*Clear Yellow*.—1, G. & J. Mackley, Norwich. 2, J. Adams, Coventry. *c. Baxter & Spence*; Moore & Wynne, Northampton. *Clear Buff*.—1 and *c. G. & J. Mackley*, 2, Moore & Wynne. *c. H. Winter*.  
**NORWICH**.—*Evenly-marked Yellow or Buff*.—1, G. & J. Mackley. 2, W. & C. Burniston, Middlesbrough. *c. G. & J. Mackley*; W. H. Wright; Moore and Wynne; T. Clemenson.  
**NORWICH**.—*Ticked and Variegated Yellow*.—1, G. & J. Mackley. 2, J. Adams. *c. W. Marlborough, Marake*. *Ticked and Variegated Buff*.—1, J. Adams. 2, G. & J. Mackley.  
**NORWICH**.—*Orsted*.—1 and *c. G. & J. Mackley*. 2, Baxter & Spence.  
**CUMWATON**.—*Yellow*.—1 and *c. Cox & Hillier*, Northampton. 2, Baxter and Spence. *Buff*.—1, J. Adams. 2, Baxter & Spence. *Marked*.—1, Baxter and Spence. 2, W. & C. Burniston. *c. J. Adams*; Messrs. G. & J. Mackley; P. Rawnsley, Bradford. 2, T. Tanniswood, Middlesbrough.  
**LIZARDS**.—*Golden-spangled*.—1, Baxter & Spence. 2, J. Adams. *Silver-spangled*.—1, W. & C. Burniston. 2, Baxter & Spence.  
**YORKSHIRE**.—*Clear Yellow*.—1, P. Rawnsley. 2, W. Agar, Castleton. *c. J. Thackrey, Bradford (3)*; J. & H. Garbutt, Great Horton; C. Worth, Skelton; J. Rowland, Skelton. *Clear Buff*.—1, R. Simpson, Whitby. 2, G. & J. Mackley. *c. W. Marlborough, Marake*; J. Calvert, Galsborough; J. & H. Garbutt; J. Rowland.  
**YORKSHIRE**.—*Evenly-marked Yellow or Buff*.—1, P. Rawnsley. 2, T. Clemenson, Darlington. *c. W. & C. Burniston*; J. & H. Garbutt (3); F. Fritschler, Hartlepool; P. Rawnsley. *Ticked or Variegated Yellow or Buff*.—1, P. Rawnsley. 2, J. Thackrey. *c. M. Jackson*, Galsborough.  
**GREEN**.—1, J. Rowland, Skelton. 2, T. Tanniswood, Middlesbrough.  
**ANY OTHER VARIETY**.—1, J. & H. Garbutt. 2, Baxter & Spence. *c. Baxter and Spence*; J. Thackrey; R. Pearson; G. & J. Mackley.

#### MULES.

**GOLDFINCH AND CANARY**.—*Buff*.—1, Baxter & Spence. 2, W. & C. Burniston. *c. G. & J. Mackley*.  
**ANY OTHER VARIETY**.—1 and *c. Baxter & Spence*. 2, W. & C. Burniston. *c. J. Rowland*.

#### BRITISH AND FOREIGN BIRDS.

**GOLDFINCH**.—1, W. & C. Burniston. 2, Baxter & Spence.  
**LINNET**.—1, R. Pearson. 2, T. Tanniswood. *c. Baxter & Spence*; W. H. Wright.  
**ANY OTHER VARIETY**.—1, J. Rowland. 2, W. & C. Burniston. *c. R. Routledge*, South Stockton; J. Fletcher, Liverton Mines.  
**FAIRBOTS**.—*Grey*.—1, J. Parritt, Lofthouse. 2, T. Henry, Liverton Mines.  
**GREEN**.—1, J. Little, Liverton Mines. 2, G. Henry, Liverton Mines.  
**ANY OTHER VARIETY OF FOREIGN BIRDS**.—1, G. & J. Mackley. 2, W. & C. Burniston.

The Silver Cup, given to the exhibitor who made the greatest number of points, was awarded to Messrs. Baxter & Spence with seventeen points, Messrs. Mackley making fourteen.

### BELGIAN CANARIES.—No. 4.

In a former chapter I drew attention to the carelessness exercised in the removal of hampers of cages during the transit from place to place. I have had cause for this complaint, for it was during the return from one of the past exhibitions held in the south of England that I lost a very good Belgian bird—a prizewinner, which met its death through a want of care. The cage the bird was in when delivered was a shapeless puzzle to behold. This is not the only instance of loss I have met with; for since the above I failed receiving back from the same place a bird and the cage it was in, the only recompense received being words to the effect that the bird and cage were not seen in the show room, although my two other cages containing birds, which were parcelled up with the lost one, put in an appearance at the exhibition. This was a still greater puzzle to me; but I have long given up all hopes of tidings respecting

either bird or cage turning up, as did my half-dozen birds and cages last year from an exhibition not one hundred miles from Brighton, after they had been knocking about in London for a week with my name and the bare address of London, instead of Derby, upon the label. I had, before sending them from Derby, properly addressed the return labels. The telegraph wires set matters somewhat right, barring the annoyance and extra expense I was otherwise put to. As I before remarked, it is better when birds "can be conveyed to an exhibition under the immediate care of the owner," Belgian birds in particular.

In my previous notes upon Belgian birds I referred to specimens upon the show stages; but before such can reach that desired position they have to pass through various phases. To my thinking there is no period during the youth of birds that Belgians appear more attractive and charming than in their nest feathers at about the age of six or seven weeks. A somewhat fascinating loveliness prevails at that particular juncture, with great promise to the enthusiastic possessor, if he can satisfy himself that true Belgian form prevails. What with the youthful freshness of plumage, the fullness of piercing bright eyes, elegantly-chiselled limbs, and aristocratic formation, backed-up with closeness of feathers possessing a soft and silky tendency, the snake-like head and neck, pipy tail, high shoulders, and a pair of wings meeting each other at the tips, all combined, claim the especial attention of one and all who make the Belgian Canary fancy their hobby-horse. And there are many who do so, and others who do otherwise and denounce them as "ugly birds." But it is the extreme ugliness to the minds of some individuals which make the birds more prizable to those who fancy them.

As the young Belgians approach a more mature stage their cleanly and smart appearance gradually becomes marred, owing to the birds beginning to undergo a change through casting-off nearly the whole of their nest feathers, and becoming more freely clothed with feathers of a richer hue. At this period (about eight weeks old) feathers strike forth as an additional covering to the underneath portions of their bodies, after which the outer body feathers bud out perceptibly. The neck and head feathers are the last to cast, and it is at this particular period that the lives of young Belgian birds are somewhat endangered if they should happen to be exposed to draughts of cooler air.

I give the following as my *modus operandi* in their more youthful stage and during the moulting sickness:—When the young Belgian birds have been parted from their parents discontinue the green food, and after they are accustomed to seed abolish the egg or soft food. Tempt them with canary seed in addition to the egg food when about a month old, and when you find the birds shelling the canary seed supply less of soft food, until you gradually and entirely wean them from it. Place each young bird when about six weeks old in a cage or partition to itself, covering each cage with some light cloth. Do not darken the cages. Colour, as with Norwich birds, is not so much to be aimed at as true Belgian position. Furnish each cage with seed and water receptacles, besides providing one for special food occasionally, such as crushed biscuit (sometimes moistened with a few drops of sherry wine), a few groats, and maw, lettuce, and cress seeds, with now and then a little stale soaked bread, which, after the water is extracted, may be otherwise further moistened with three or four drops of cod-liver oil. This occasional food will nourish the birds during sickness. A piece of suet may be placed betwixt the wires at the end of the perch. No sugar, but a small piece of salt, which tends to regulate and purify the system. Canary and millet seed may be supplied. The foregoing diet will be good during the moulting or any other time. If at any period constipation should occur, put half a teaspoonful of treacle in the water. Do not moulnt Belgian birds with cayenne pepper.

I always prided myself in bringing my Belgian birds up to the mark, and I have bred and exhibited successfully a good many in my time, treating them as I have set forth above; but in addition, a day or two prior to exhibiting them, add a little sherry to their water, besides blowing them with some. The best of sherry must be used. The "blowing" is effected by taking within the mouth half a teaspoonful of wine, and forcing the same from betwixt the compressed lips over the bird in a fine mist. This operation may be repeated two or three times. Mind and do not make the mistake by swallowing the sherry yourself. I was once instructing a would-be Belgian fancier in the art of blowing sherry over birds, but he made what appeared to me the intentional mistake of swallowing the wine, remarking, "For the life of me I cannot afford to part with it." The sherry "blowing" may be periodically practised during the moulting, after each of which occasion (the wine, if well delivered from the mouth over the legs of the birds, having a titillating effect) give your Belgian bird pupils, whilst inclined to prance about somewhat and stretching their legs, a lesson or two by "fiddling them up against the wall" with the thin magic wand now and then occasionally rubbed on the sandy floor of the cage bottom, and also gently moving it about beneath

the perch the bird is standing upon. By-the-by, let there be but one top perch in the cage, or you will habituate your Belgian bird to the hanky-panky actions the Scotch Fancy birds have of jumping from one perch to another.—Geo. J. BARNESBY.

### EGYPTIAN BEES AT HOME.

HALF a generation ago our late friend Mr. Woodbury described how he was obliged to banish the Egyptians from Devonshire in consequence of their untameable ferocity; and according to the following account, condensed from Swineforth's "Heart of Africa," they do not appear to keep "company" manners at home:—

"As our towing-rope was being drawn along through the grass on the banks it disturbed a colony of bees. In a moment like a great cloud they burst upon the men who were rowing, who all plunged into the water and sought to regain the boat. The bees followed them, and in a few seconds filled every nook and cranny of the deck. I called out to know the cause of the noise and confusion, but only got excited gestures with cries of 'Bees bees!' I tried in vain to light my pipe. In an instant thousands of bees are about me, and I was mercilessly stung all over my face and hands. Vainly I tried to protect my face with my handkerchief, and the more violent my motions the greater was the fury of the bees. The maddening pain was now in my cheek, now in my eye, now in my head. The dogs were frantic and burst out, overturning everything in their way. Losing well nigh all control, I flung myself in despair into the river. I dived, but all in vain, for the bees still rained down on my head. I crept through the reedy grass to the swampy banks, and with lacerated hands tried to gain the mainland to find shelter in the woods, but was dragged back by my servants with such force that I was nearly choked in the mud. Again on board I dragged a sheet from my chest, which afforded me some protection, while I gradually crushed the bees enclosed within the sheet. By great courage on the part of my people my large dog was brought on board and covered with cloths; a smaller one was never recovered, stung to death no doubt by the bees. Cowering down under my sheet I lingered out full three hours, whilst the buzzing continued uninterruptedly, and solitary stings penetrated periodically through the linen. Everyone became equally passive with myself—perfect silence reigned on board, and the bees gradually subsided. Some of the crew then went stealthily up the banks and fired the reeds. The smoke scared away the bees, and the boat was drawn to the other bank. With the aid of a looking-glass and pincers I extracted the stings from my face and hands, but could not reach those under my hair. These produced ulcers which for two days were very painful. I felt ready that evening for an encounter with half a score of buffaloes or a brace of lions rather than have any more to do with bees! Several of our party suffered from violent fever. Of sixteen boats which followed us all were pestered by these bees, and two persons were stung to death."

### APICULTURAL SHOW AT STRASBURG.

The Association of German and Austrian apiculturists have chosen for the place of their twentieth annual meeting the city of Strasburg in Alsace, on the 14th, 15th, 16th, and 17th September, and there will arrange in the buildings and grounds of the Orangerie, which have been placed at their disposal by the city, an International Exhibition of Apiculture, together with a prize lottery of apiculture products. The participation in the Exhibition is open to all. Living bees, as well as all articles and products relating to the culture of bees, will be received for exhibition. A jury named by the Association will award the prizes. The Association, desirous of giving every facility in their power to strangers visiting the city on this occasion, have named a special committee for the reception and lodging of guests. Mr. Louis Henry, President of this Committee, will willingly give any information that may be desired, through inquiries addressed to him at the Mairie at Strasburg. All communications should be addressed to the President of the Exhibition Committee, Dr. Raymond Schramm, Dornengasse No. 11, Strasburg in Alsace.

**MOSES QUINBY.**—This distinguished bee-keeper died at his residence at St. Johnsville, N.Y., May 27th, aged sixty-five years. Mr. Quinby was the author of "Mysteries of Bee-keeping," a work that is highly prized not only by American apiculturists, but in the library of almost every noted bee-keeper of the European world. He has for a number of years past been a valuable correspondent of the leading agricultural papers and bee journals of the United States. He served one term as President of the North American Bee-keepers' Society with credit to himself and honour to the Society. He also held the office of President of the North-eastern Bee-keepers' Society for a number of years, as also that of many other organisations pertaining to agriculture. He was extremely practical in his

advice to bee-keepers, as well as his workings in the apiary.—(Philadelphia Practical Farmer.)

### OUR LETTER BOX.

**HOUDAN CHICKEN FEATHERING (Houdan).**—It is a characteristic of Houdan chickens to feather very early, but we have seldom found their tail and wing feathers grow till they were fully twelve weeks old. The first change of plumage is not moulting; it is a substitution of feathers more fitted for the wear and tear of increasing age than the downy covering of the first few weeks of life. You will often see a young cock with his neck covered with stubs as though he were in deep moult; but it is not so, it is the gradual formation of his first adult plumage. That will last till the regular moult comes on. Moulting is the process by which every feather is dropped and replaced by a new one. It comes on as soon as the duties of the breeding season are over. The old clothing, warm enough for the hot summer, would be a poor covering in the winter. After incubation, confinement, and the care of a family, the plumage has lost beauty and utility. The work of the breeding season is done. The feathers then begin to fall, and are replaced by new ones. This is generally in June, July, and August. The process is a slow one, but sure; the feathers grow in strength and beauty. Winter finds the bird well protected, and the breeding season finds it clothed in nuptial plumage.

**CRYSTAL PALACE HONEY SHOW (Billingey).**—Mr. Hunter of Eton Rise Ealing, will be happy to give you all necessary information; also the proper price to put on your honey and honeycomb. Prices probably will be high this year in England, as honey is not plentiful.

**HYBRID LIGURIANS (G. T. S.).**—The bees you sent in your last note have the Ligurian marks, and appear to be hybrids or half Ligurians. It is a common occurrence for the queens of common bees to be mated with Ligurian drones from hives several miles distant. Many of our queens are thus mated, and we know not where the drones come from.

**CANARY WITH A LUMP ON ITS NECK (A Pet's Keeper).**—Your Canary is not suffering from a confirmed disease of any kind. The outward application of fatty matter in some instances would be good, but in the case of your pet the oil about the neck would cause the bird to feel more uneasy through the cloggy tendency it would have upon the feathers, besides closing the pores of the skin. All outward eruptions are caused by a defective state of the blood—the same in birds as other animals, therefore it is better to go to the root of the evil. In the first place we will advise you to administer one or two drops of castor oil, inwardly of course, and in the next place to alter the diet of the bird. Instead of only giving your bird canary seed, reduce the same at least one-half, by letting soaked and scalded rape seed take the place of it. Keep the bird upon a free vegetable diet also, letting it have lettuce, water-cress and groundsel. The common weed known by the name of plantain is growing in abundance just now, and supply your bird with as much of it as it will eat. The weed is known by its peculiar spired, closely-seeded stems, and grows freely on roadsides. Not having seen the bird to see what sort of a "lump" it has upon its neck, it would be dangerous to recommend a surgical operation with the knife. If the protuberance or callosity is of a hard tumorous nature you may cauterise the immediate surface of it with canthar. It may be fearful that it will be painful to the bird. It may possibly wane away. Place a little stick liquorice and a rusty nail in the water. No sugar or other sweets. Keep a small piece of salt in the cage. With the above treatment it is just possible that the "lump" may disappear over the moult. If it does let us know.

### METEOROLOGICAL OBSERVATIONS.

CAMPDEN SQUARE, LONDON.

Lat. 51° 52' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1875.	Baromet. at 33° and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
August		Dry.	Wet.			Max.	Min.	In sun.	On grass		
	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	In.		
We. 18	30.094	68.3	61.8	S.E.	68.6	72.5	61.5	123.0	56.1	0.010	
Th. 19	30.128	64.0	60.8	N.N.W.	66.7	71.9	54.3	106.8	53.3	0.069	
Fri. 20	30.310	64.5	59.5	N.	64.3	74.3	58.7	117.3	50.0	—	
Sat. 21	30.387	64.8	58.9	W.	64.0	74.0	55.0	113.0	50.6	—	
Sun. 22	30.361	64.4	58.8	N.W.	63.8	75.9	53.7	113.7	49.6	—	
Mo. 23	30.110	63.7	59.4	S.W.	64.0	76.0	50.0	117.9	44.3	—	
Tu. 24	29.998	63.3	57.5	W.N.W.	63.5	75.8	51.0	110.0	43.9	—	
Means	30.159	61.7	59.4		64.5	74.8	54.1	114.9	50.4	0.089	

### REMARKS.

18th.—A very pleasant day, being much cooler; showery about 5 P.M., but fine after.  
19th.—Very fine morning; midday dull, dark, and foggy, particularly so about 5 P.M.; tremendously heavy rain about nine, and continuing on till midnight.  
20th.—A little rain in the morning, and very soon dark, but a pleasant day.  
21st.—Fine morning; rather cloudy at noon; but a very fine afternoon and evening.  
22nd.—Heavy in the morning, but soon clearing off, and followed by a very fine day.  
23rd.—A very pleasant day throughout.  
24th.—Cloudy morning, and occasionally so during the day; on the whole a very pleasant day, and splendid start night.  
A very pleasant summer week, the only remarkable feature being the unusually heavy shower on the 19th, when 0.19 inch of rain fell in one minute; the total fall in the day was 0.059 inch. The mean temperature was about 8° below that of the week previous, except underground, which was 1° in excess.  
—G. J. SYMONS.

### COVENT GARDEN MARKET.—August 25.

A LARGE quantity of all kinds of goods have been cleared during the week, with no alteration in prices. Heavy supplies of Kent Filberts, realising from 82s. 6d. to 87s. 6d. 100 lbs. Jersey Grapes 8d. to 10d. a pound, good samples of English Grapes fetching very little more.

## WEEKLY CALENDAR.

Day of Month.		Day of Week.	SEPTEMBER 2—8, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.		Clock after Sun.		Day of Year.
				Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	s.		
2	TH		Alexandra Palace—International Fruit Show.	71.0	47.6	59.8	16	at 5	49	at 6	1	at 8	81	at 7	8	0	27	245	
3	F		South of Scotland Show at Dumfries.	71.8	47.7	59.2	17	5	41	6	15	9	42	7	4	0	46	246	
4	S		Manchester Show closes.	71.0	46.7	58.9	19	5	39	6	30	10	51	7	5	1	6	247	
5	SUN		15 SUNDAY AFTER TRINITY.	70.4	47.1	58.8	20	5	37	6	44	11	10	8	6	1	26	248	
6	M			70.2	46.8	58.5	22	5	34	6	after.		30	8	7	1	45	249	
7	Tu		Crystal Palace Great Autumn Fruit and Flower Show.	70.5	47.5	58.9	24	5	32	6	10	2	59	8	8	2	6	250	
8	W		Glasgow Show.	69.4	45.0	56.7	25	5	30	6	17	8	39	9	9	2	26	251	

From observations taken near London during forty-three years, the average day temperature of the week is 75.0°; and its night temperature 47.3°.

From observations taken near London during forty-three years, the average day temperature of the week is 75.0°; and its night temperature 47.3°.

WHICH IS THE BEST WAY TO TRAIN  
OUTDOOR PEACH TREES?

**D**URING the autumn of 1872 I purchased thirty maiden Peach and Nectarine trees, including the best of the old kinds and some of Mr. Rivers's newer varieties, never dreaming for a moment that the latter were such acquisitions as they have since proved themselves to be, and I should have been more than satisfied if they had only turned out half as well as they have, for we always expect everybody to think his own geese are swans. Mr. Rivers, however, seems to be free from that common failing, and to be able to judge with impartiality his own productions, and only to let us outsiders become acquainted with such as are worthy of being associated with his honoured name.

Although I wanted to test some of the varieties, my main object was to test a whim of my own for quickly covering a wall; for as a rule Peaches do not flourish at all in this neighbourhood out of doors, and indeed the trees do not live many years in the particular spot I have charge of, the soil being extremely cold and heavy, the atmosphere humid, and frost visits us every month in the year; it completed the cycle this year by coming in August, and leaving its visible effects on Heliotrope and Coleus. Under these conditions it is hardly worth while to go very elaborately into a system of training which will take eight or ten years to cover a wall, for it is a hundred chances to one if the trees ever live to such a respectable age.

Again, I always had an idea that the severe mutilation Peach trees undergo for the purpose of producing what are called trained trees has much to do with their habit of gumming in after life. If you should be so fortunate as to procure young trees evenly balanced, it is a very difficult matter to keep them so. Strong sappy shoots will occasionally start, and if not attended to immediately will rapidly rob the weaker growths; and cut, pinch, and train afterwards as you will, the balance is irretrievably lost, and probably you have gumming as well.

In fan training no three branches can have equal advantages, because of their being placed at all the different angles between upright and horizontal; and although there is no difficulty in managing the Plum and the Cherry owing to their hardier nature, yet Peaches and Apricots are very seldom satisfactorily trained in this manner out of doors. Well, then, if a system can be found which is simple and gives every shoot an equal chance, and which also hastens the maturity of the wood in autumn, and produces a crop of fruit in half the time, I think that system is to be preferred. The simple cordon does all this and much more. My soil, however, I consider too strong for simple cordons; unless the walls were much higher the trees could scarcely be kept within bounds. The double or treble cordon has nearly all the disadvantages of the fan-trained tree by giving some branches greater facilities than others. What I have

adopted I suppose must be called a compound cordon, although it is still extremely simple, and I find any boy of average intelligence can be taught by the aid of one or two lessons how to manage the trees after they are fairly established.

Maiden plants are selected in autumn as if for simple cordons, only their growth must be untouched, and it must be ripe; we want moderate-sized firm wood, not pith and water. They are planted obliquely at an angle of 45° and about 4 feet apart, measuring in a horizontal line, and have just one tack to prevent them being blown about. Nothing more is done to them beyond giving a little protection in spring and taking care of the insects till the following June, when the buds which are not wanted to produce long shoots are pinched-back to two or three leaves, not pulled off; and mind, they are still unpruned, their laterals being all left on them as they were produced the previous summer.

As soon as the young trees attain a real healthy growth, say about midsummer, such as are wanted of these same laterals are nailed-in at right angles with the stem at a distance of 9 or 10 inches apart, while those not required are cut-back, leaving if possible shoots at the bases to be kept pinched-in. The laterals laid-in at right angles with the stem are trained to fill the space between the two trees, and are treated exactly on the closely-pinched cordon principle. There may be some blanks at first, but these, if the stopping and training is attended to, will be filled up by other wood buds pushing from the main stem.

It is quite a mistake to suppose laterals on Peach trees are useless; I never cut them out if there is room for them and they are produced sufficiently early in the season to ripen, even on fan-trained trees, and on fan-trained trees indoors especially; by utilising them you can cover your space in a much shorter time. On my compound cordons, as a rule, the only buds which are removed are those which are on the side next the wall, all others are kept pinched only, unless they are likely to become too crowded. I think it very important to have the main stem especially covered with foliage, as thereby the sun's rays are not likely to act injuriously on it, and it swells very much more freely than when denuded.

As I said at the commencement, I bought thirty maiden plants in 1872, that being all my exchequer would allow at that time, and my wall being a good length would only allow the plants to be about 8 feet apart; but the following autumn—that of 1873—being encouraged by the appearance of those I already had, and having brought my ideas into practical shape and experimented to my satisfaction on the system of midsummer pruning, I procured other thirty plants, and filled up the wall so that the plants were about 4 feet apart. These last-planted trees now, owing to my understanding better what to do with them, are superior to the first lot, being about the same size and very much better clothed with foliage, and I have the satisfaction of seeing such a crop of fruit on them for quality and size as I have never had here before.



Some kinds, however, have gummed badly, and some, although in excellent health and promising well for another year, are not fruiting much now: this is the case with Salway and Barrington. The last-named has made splendid growth, not a single fault in the four plants I have, and I expect great things from it next year.

I believe Barrington to be the hardiest Peach in cultivation; it is not subject to mildew, and the fruit is of good quality. Early Beatrice seems to be early in more ways than one, two trees of it planted in 1872 and 1873 produced at least four dozen fine fruit of good flavour; the first fruit was sufficiently ripe to pull off on the 26th of July. Early Louise was about a week later, and the first Early York was plucked August 19th. I have other early kinds, but have not yet had sufficient experience with them to say much as to their doings. At present Early Beatrice seems to have the best constitution among the earliest.

Among the good old kinds Bellegarde is growing well and fruiting abundantly; and Nectarines Violette Hâtive, Hunt's Tawny, Bluge, and Murray, are all in splendid health and bearing full crops.

The wall is 12 feet high, and is covered to an average of 8 feet; some kinds, as Downton and Violette Hâtive Nectarines, Stirling Castle and Bellegarde Peaches, have nearly filled their allotted spaces. The bottom of the wall is covered to within an average of 18 inches. I do not find any shoots taking the lead, for the growth is very regular when trained on this system. My present intention is to plant another length of wall in the same way during the coming November, and I hope to have it in full bearing in 1877, by which time the one I have now will probably be past its best and ready for renewal. The border will merely require trenching, and a little fresh rather poor soil placed round the roots of the plants to start them; road edgings are capital for this purpose.

It is quite a mistake to plant the Peach tree in rich soil, it makes more solid growth and ripens earlier in soil that is rather poor and sweet. A stimulant if necessary can always be applied during winter or early spring, but never after the fruit has commenced its second swelling, or the trees will be induced to make late growth.

Drainage is of the first necessity on cold soils, not merely a pipe-drain or two, but a good layer of broken bricks or stones 8 inches or a foot deep, not so much for the purpose of carrying off the water as for giving warmth to the border.

If for advocating the foregoing system of training I am accused of deserting a former text—that a tree should be trained in the way its natural habit suggests—I have only to say that the habit of the Peach tree here is to make long sappy growths which our summers cannot ripen, and thereby suggest the desirability of limiting them to such growth as can be matured.

I have temporary wooden coping-boards about 18 inches wide; these are placed in position in spring and remain till summer weather sets in; but as nothing of the sort has ever reached this part of Wiltshire this season, the boards are there still, and there they will remain till the growth of the trees is fairly ripened.—WILLIAM TAYLOR.

### CULTURE OF THE CYTISUS.

The culture of the Cytisus is not so generally known amongst gardeners as it ought to be, for if it was known to be so easily grown it would be one of their most popular plants. Many a gardener as he walks through Covent Garden is struck with amazement to see such large and well-bloomed plants in such comparatively small pots. I offer a few cultural remarks on this valuable plant.

The present time is the best to put in the cuttings, which should be of the side shoots, about 2 inches long, of moderately firm wood, not too hard or too soft, which the plants abound with at this season of the year. They will strike just as well without a heel as with, but it would be safer for beginners to take them off with a heel. They should be put in well-drained pots in a mixture of loam, peat, and sand, with about half an inch of sand on the surface, and have a gentle watering, and then placed in a close cold frame. By keeping them carefully watered they will shortly callus, and then if the pots can be placed in gentle bottom heat the cuttings will be well rooted in a month. At this stage they should have their points taken out, and when they have broken pot them off into middle 60's in two parts turfy loam and one

of peat. Keep them rather close till they begin to grow, when they should have plenty of air and light.

Keep them plunged in ashes in a cold frame till the latter end of March, when they should be potted into 48's in two parts turfy loam, one of peat, and one of cow dung well rotted. Keep them in the cold frame till the middle of May, when they should be plunged in ashes in the open air in an exposed situation where they can receive abundance of sun. Being grown in such small pots it is important that the plunging, also regular watering, be attended to. Keep the shoots closely stopped till the beginning of August, when the pinching should be discontinued. Let the plants remain in the open air till there is danger of frost. When the pots are filled with roots the plants will be greatly benefited by some weak liquid manure twice a-week till they are placed in their winter quarters, which should be in cold frames or a greenhouse, where they will soon set their flower buds, and by placing a few of the forwardest in an intermediate temperature a succession of bloom can be provided from the beginning of March till the latter end of May.

The most useful species are *C. racemosus* and *C. atleanus*. *C. atleanus* by its compact habit does not require so much stopping as *C. racemosus*.

Few plants in the spring months are so bright and effective as these; they are dense masses of gold when grown as above described. Generally they are seen of loose straggling habit by too tender nursing and insufficient stopping of the shoots in summer. By proper culture (and it is exceedingly simple) the plants when in bloom at eighteen months from inserting the cuttings are 18 inches high and through, the yellow tresses hanging over and almost hiding the pots. It is only in Covent Garden and in a few places round London that such perfect plants are seen, but they may be as easily produced in country gardens if the above details are carried out. I have omitted to say that the pots must be frequently twisted round in the summer to prevent the roots penetrating the ashes; to further prevent this each pot should be placed on a piece of broken slate.—A. Y.

### IN THE WEST COUNTRY.—No. 3.

No three places could be more distinct than those which on the day before the Exeter Rose Show I was enabled to visit through the kindness of my friend Mr. Baker, who lent me his ponies for the purpose. In Wanslade one has a good specimen of what is called in gardening parlance a dressed place. Poltimore is a good specimen of the old-fashioned style of gardening—not that I mean by that anything backward or out of place; while Killerton derives its main interest from the beauty of its position and the fine trees with which the park abounds; and as each in its way is characteristic of the horticultural taste that so widely prevails in our land of gardening, a few notes on what I saw may not be unacceptable to the readers of our Journal.

WIMBORNE, the seat of Joshua Dixon, Esq., is only a few miles from Exeter, and the house itself is a plain substantial building surrounded by admirably kept grounds. There is a conservatory attached to the house, very handsomely built with a dome-shaped roof, and the domes of each end were furnished with fine plants of *Tasmania Van-Volxemi* and *Tasmania exoniensis*, a garden hybrid, both of which were in fine flower, and their exquisitely beautiful pendant flowers were very attractive. Some fine specimens of *Dicksonia* and *Oyathes* filled, with other plants, the centre of the house; while to the side walls, which are in such buildings generally bare, were affixed baskets filled with moss in which Ferns of various kinds were planted, such as *Adiantum*, *Davallia*, and *Pteris*. The effect was very good, and I thought worthy of imitation. There is in front of the mansion a very handsome terrace garden, the upper terrace depending mainly for its beauty on foliage plants, such as *Alternantheras*, *Pyrethrums*, and *Colours*. The lower terrace is lined by a row of Golden Yew, and the beds were well filled with the usual bedding plants. *Verbena* was largely used and was very attractive. There was near this garden a very fine specimen of *Pinus insignis* 50 feet high, and a large Cedar which had been transplanted by Mr. Barron of Chiswick, and was a living witness to his skill and experience. There was a bed of herbaceous *Paeonies* which must have been very fine when in bloom, and in the shrub-beds were some specimens of *Viburnum* with noble trusses of white bloom. What, however, was to my mind the most characteristic feature of the place was a broad walk, into which



you turned from the terrace and by which you approached the kitchen garden. In front of this ran a canal, and a handsome stone balustrade was continued the whole length of the walk. On the left-hand side was a wide border, at the back of which was the wall, but this had been most judiciously hid by a line of Thujas, Irish Yews, Laurus, Colehiums, &c. In front of this was a belt of Rhododendrons, then a row of Kalmias, and the front of the border was filled with Phlox Drummondii and Larkspur. The kitchen garden was well stocked, and in the houses were some pot Vines exceedingly well done, and which had been fruited three years in succession. The croquet ground (although, alas! croquet is becoming unfashionable) was circular, and surrounded by a thick belt of Rhododendrons. The place was in excellent order.

At POLZIMORE I was kindly received by Mr. Lang, who has lived as gardener there many years, and who conducted me over the place. It is, as I have said, no way remarkable, but all about it bore witness to the intelligent care of one who evidently loved his calling. The Conifers seemed, as were all in this part of the world, in good condition. There is also, which is not unusual in Devonshire, a very fine avenue of Limes leading up to the house, which the bees much delight in. Visitors to Torquay will remember the very fine one existing there, and Mr. Lang told me that there was an idea that they were planted as a compliment to William III., the Linden being the favourite Tontonic tree. There were also some magnificent beds of Rhododendrons, and in the pleasure ground a very pretty circular roserie planted with all the best Roses. The kitchen garden contained some good houses of fruit, Peaches and Grapes being well done; and as the soil of the garden is a favourable one, vegetables of all kinds were in luxuriant growth, while there were some of the best pyramid Pear trees that I have seen for some time and well laden with fruit. In fact the whole place, while containing nothing very remarkable, was yet just what an intelligent gardener would make it; and this is no slight praise, for just as it is said the test of a gentleman being well dressed is that you would not notice anything in particular, so in a well-cared-for garden all is well done, and yet nothing may come out very prominently.

KILLERTON, the seat of Sir Thomas D. Acland, differs from the other two places, and has an advantage over them in the beauty of its position and the scenery surrounding it. The house, a plain one, stands at the foot of a hill, with a pleasant park stretching in front of it, the kitchen garden being at some distance from the house. Owing to the peculiar condition in which the property has been the glass has become old and out of repair. Indeed for some years, I believe, the garden was farmed by the gardener, and it is well known how very successful Mr. Garland has been in vegetable culture. Here again a favourable soil helped him much. He is also a bee-keeper, and I saw here some of the best-filled supers that I have seen in this sadly indifferent year for bee-keepers. But the feature of Killerton is the Deodar valley, and in the course of a few years it will be an unique sight. The valley is perhaps a little more than a quarter of a mile in length, and nearly the same in width. The Deodars are judiciously planted amongst the others which occupy the glen, and as they increase in growth spaces are cleared away for them. Already they make a remarkable feature in the landscape, and it was a happy thought to place them there. The beautiful little chapel in the grounds with its avenue of Deodars leading to it is also a noteworthy object, and the whole place is one of those charming residences for which our island is so famous.—D., Deal.

#### DESTRUCTION OF ANTS.

In our Journal of August 19th "BETA" says he has often smiled at the advice given in answer to the question, How to destroy ants?—viz., sugar in a sponge, oil in a saucer; and now I am going to add another means of destruction which I have found perfectly successful on my lawn. One remedy is useful in one case, another in another. For instance, the other day a neighbour asked me how to get rid of ants that infested his kitchen cupboard. Here neither the slate nor the flower pot would be likely to answer, but syrup of sugar or oil in a saucer could easily be used. Again, on my lawn close to the windows a slate or a flower pot would be unsightly, even if my numerous "olive branches" would leave slate and flower pot unmolested. But my remedy is free from all these objections, and is simple and easily applied. It is simply liquid manure from the stable. If the first application does not entirely do away with them a second application will complete the cure.

I have no doubt but liquid manure of other kinds will equally answer the purpose.

I can corroborate "BETA's" experience with the slate, for the other day, on lifting a flat stone in the garden, I found a strong colony beneath it, but after being disturbed they ske-daddled: so do not lift till you are ready to destroy. Another plan, but which I have not tried, is to put an empty flower pot over their nest upside down. They will build up into this, and it can be taken up with a shovel and handed over to the chickens or young pheasants, or be otherwise disposed of.—H. C. BIPLEY.

#### THE PHLOX AND PENTSTEMON AT LEA BRIDGE ROAD NURSERY.

I HAVE frequently had occasion to recommend the Phlox as a very valuable easily-cultivated plant for autumn flowering. My reason for doing so has been founded on the fact that, although it is a fit subject for a royal garden, it may be grown quite as well and to as high a state of perfection by the most humble cottager.

Its management may be summarised in a very few sentences. First as to propagation. In spring when the young growths are about 2 inches in length, which they will generally be in March, they may be taken off and inserted one in the centre of a thumb-pot. The pots should then be plunged in a little bottom heat in a hotbed; the cuttings will soon strike roots, and when a little growth has been made the plants should be potted into 5-inch pots. The compost most suitable is four parts turfy loam, one leaf mould, and one of rotted manure. A little sand should be added if the loam is not naturally sandy. The plants should be grown in a sheltered position out of doors, and be removed to the greenhouse when the flowers begin to open. When the flowering period is over the plants may then be cut-over and plunged out of doors, or else planted-out at once, for these are the plants that will make a splendid display out of doors the following season. Some of the plants will throw-up a large number of spikes, others only two or three. The last number will be enough to allow on each plant, and if the ground is deeply trenched and well enriched with rotted manure the plants will be certain to give satisfaction. When the stalks are cut-down in the autumn the ground between them should be mulched with frame dung that has been well decayed, when a good growth may be expected the following season; but cuttings should be taken from the plants in the spring, as after the third year the old plants should be dug-up and destroyed. The Phlox needs but little attention; the spikes merely require fastening to a stoutish stick, as they very easily snap-over at the surface of the ground.

I was induced to make the above remarks after visiting the nurseries of Mr. John Fraser, Lea Bridge Road, where hundreds of plants comprising all the best of the old and also the newest sorts may be seen planted-out in beds. Mr. Fraser was good enough to go round with me, and together we selected the following as the very best in the collection:—Riviere, bright salmon, purplish crimson eye; Mme. Joubert, purplish salmon, carmine eye; Madame Meuret, rosy lilac, crimson eye; Josephine Towest, bluish shaded, crimson centre; Deliverance, mauve, crimson eye; Esperance, deep rose, crimson centre, each segment of the petals marked with white; Mons. Thibaut, salmon, purplish centre; White Lady, fine bluish white; Chanzy, bright rosy purple, small crimson eye; Menotti, lilac, large white centre; Rose d'Amour, very bright crimson salmon, darker centre; Coccoinea, bright crimson scarlet, very fine variety; Mlle. Hermine de Turenne, crimson, darker centre, splendid spike; Madame Marin Saison, white, large purple centre; Madame Randatler, striped lilac, large flower; Etoile de Neuilly, white, large crimson centre; Madame la Comtesse de Turenne, white, very fine rose centre, grand spike; Souloque, bluish, large purple centre, large flowers; Virge Marie, white, purple eye, fine spike; Mrs. Mitchell, white; Mrs. Hunter, bluish, crimson eye, fine flower. With the exception of the two last-named sorts, all the others belong to the decussata or late-flowering section, which succeeds best in the south of England. The early-flowering section succeeds best in the north.

Pentstemons are another class of autumn-flowering plants requiring similar treatment to the Phlox, except that the cuttings are taken from the plants in autumn, and the pots are wintered in cold frames, and when growth begins in the spring the plants are potted-off, and they are planted in beds in

March or April. It is best to propagate a fresh stock every year. There is a great variety amongst them, but I only noted a few of the best and most distinct flowers:—De Candolle, purple, white throat; De Saussure, bright red, white throat; Grand St. Bernard, bright purple, white throat; Grand Patriot, purplish crimson, white throat, beautifully pencilled with purple; Drapeau Nationale, bright red, white throat, pencilled red; Union, rose, white throat, pencilled purple; Concord, reddish purple, the throat of the same colour, dark pencillings; Michel Buchner, splendid flower with crimson purple throat, beautifully pencilled; W. E. Gumbleton, large flowers, light purple, white throat; Stanstead Rival, scarlet, white throat; Valerie, crimson, white throat.

In conclusion, it may be stated that the Pentstemon is better adapted than the Phlox for cutting to fill large vases or other decorative purposes, as the plants last longer in beauty; the Phlox fades very soon after the spikes are cut, so that the peculiar beauty of the flower is best admired on the growing plant.—J. DOUGLAS.

## STRUCTURES FOR FORCING AND PROTECTION.

### No. 1.

THE inquiries of many correspondents will be answered, and those of others anticipated, by the submitting of a few of the various means which are adopted for the protection of plants against the inclemency of the weather. The means submitted are those which have proved their utility by actual practice, and are adapted for different plants and circumstances.

As it occasionally, or it might be said commonly, happens that what is required is not an expensive and elegant construction, but something plain, inexpensive, and effectual—it may even be of rude material, and of primitive appearance, such that may occupy a place in the back kitchen, the frame ground of the garden, that we first draw attention to the simplest of all protective aids, by going literally to the root of the matter—i.e., the earth.

These earth pits were found of great value by the late Mr. R. Fish.

Fig. 31 is a simple excavation where the earth is banked

Fig. 31.

highest at the north side, affording a sharp slope to the covering to carry off the rain.

Fig. 32 is of the same nature but with sloped sides. The em-

Fig. 32.

bankments if surfaced with asphalt will exclude the wet, and the pit will last for many years.

Fig. 33 is a turf pit above the ground level, and dryness is consequently better secured.



Fig. 33.

The pits may be 5 feet wide and of any convenient depth, say 2½ feet at the back and 15 inches in front. The pits, especially those having vertical sides, should have upright posts driven in at intervals, and be lined with rough boards with cross pieces wedged in to keep the sides from pressing inwards. They may be covered with glass, shutters, straw hurdles, or tarpaulin to exclude wet or frost, of which neither will find

entrance except by the top. Such pits are useful for wintering Endive, Lettuces, Cauliflowers, Calceolarias, and Gazania cuttings, Lobelias, Pentstemons, Pansies, &c., indeed, all plants which are not really tender, but which still require a measure of protection. They are admirable for Tea and choice and tender Roses, also for plunging in them hardy Azaleas, Rhododendrons, Deutzias, &c., which require protection at the root, which saves both pots and plants. In the spring they are capital aids to an early crop of Potatoes, also for Tomatoes, Vegetable Marrows, and Cucumbers in summer. They are always ready for seed-sowing, cutting-striking, and plant-nursing; indeed they are rough and ready aids to any gardener.

A more perfected earth pit is devised by Mr. Abbey. It is thoroughly substantial, neat, and undoubtedly useful.

For this pit a dry site should be selected, and it should be well drained. The walls are built hollow on a broad foundation of asphalt. A well-made frame or sill with lights (double glazed) are affixed, the whole to be finished in a workmanlike manner, and spouted to carry off the water. This is unquestionably a first-rate and invaluable earth-bound structure, of which Mr. Abbey says—“We have in this pit a winter mean temperature of 58°, or we have that temperature in the earth, and may have it in the pit providing sufficient covering be given to retain it. Though sunk in the ground the pit will be fairly dry, for the walls &c. will keep damp from

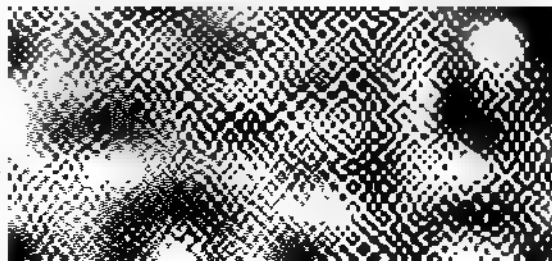


Fig. 34.

the inner walls &c., and damp cannot rise up them on account of the lower courses being laid in asphalt. Any water accumulating in the area or cavity &c. will descend to the bottom, and pass, as regards the back, into the drainage through the pigeon-holes, whilst the front will take the water from the drainage, and that in the front cavity should communicate with a drain. Any damp rising in the cavities is to be dissipated by removing the wood plugs that close the pipes &c., which will cause a change of air in the pit at any time, and that may be effected without opening the lights in dull damp weather when the heat of the pit is deficient. Much may be done in the way of securing more heat by keeping the lights closed in sunny days and ventilating through the pipes &c.; and another use of the pipe ventilators is, when the external air is warmer than 58° they may be opened for a few hours in the middle of the day, and a change of air thus given the plants as well as the temperature increased, and this without removing the covering. The pipes all have wood plugs, kept close when the atmosphere is below 58°, and open when above that temperature, day and night. Without protection 10° of frost will be kept out when not of longer continuance than an evening or a night, and with a 9-inch covering of dry straw or litter of any kind, which must extend over the pit as far as the pipes &c., the pit is proof against any frost occurring in our climate; but a 6-inch covering will in most cases be sufficient.”

The next, which is a cheaply-erected, substantial, and very useful protector, is built above the ground level.



Fig. 35.

This pit, both for protecting plants in winter and growing them in summer, is an important adjunct to any garden. The ground should be sloped up the front wall and tarred to carry off the wet.

The next is a sunken pit and adapted for the protection of tall

plants. The walls of these pits are represented as of 9 inch solid brickwork, but it would be infinitely preferable that they be 14-inch hollow walls, which would more than double their frost-resisting power. The glass if sufficiently covered with mats and straw will render these hollow-walled pits frostproof

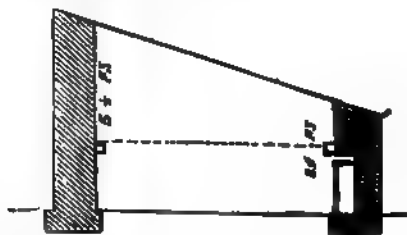


Fig. 82.

in any ordinary winter. However, a pipe or smoke flue along the front of Fig. 83 is strongly recommended.

frames attached to communicate heat to the frames and house at the same time. A dry site is necessary, and the plan is carried out by sinking the walls 5 feet below and raising them 6 feet above the ground level. The house can be made of any requisite width and length.



Fig. 83.

In most of the plans submitted the earth is mainly relied on and turned to account as a protective medium. This is supplemented by coverings; and the introduction of a pipe, flue, or stove, as is the most convenient, will prevent the temperature falling so low as to injure plants which without protection

Fig. 86.

Another earth pit still further advanced has been communicated by a journeyman gardener. It is heated by hot water, and is a neat and admirable contrivance, not only for protecting but for cultivating plants. A lattice-work platform could be substituted for the soil if required.

Fig. 87, *a a*, is the ground level; *b*, a line of pillars, on the tops of which is laid a strong beam for the support of the planks on which rests the soil of the bed; *c c*, hot-air chamber, with flow and return hot-water pipes; *d d*, pipe in connection with the hot-air chamber for the regulation of atmospheric heat; *e e*, a connection between the pipes *d* and the eva-

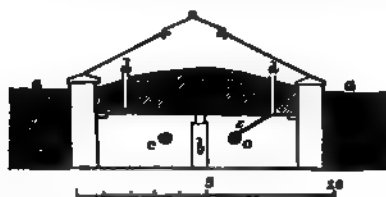


Fig. 87.

porating pans on the hot-water pipes, by which means water can be poured into the pans, and moisture admitted to the atmosphere at pleasure.

Fig. 88 shows the sashes of this pit and the mode of fixing and ventilating.

This pit besides its usefulness for plants is adaptable for forcing vegetables, as French Beans, Asparagus, Radishes, Potatoes, Sea-kale, Rhubarb, &c.

Another idea (fig. 89) is submitted. It was originated by Mr. Geyelin, C.E. It is a house for wintering plants with hothead

would be destroyed. These plans will be suggestive, and may be followed by others more pretentious in character yet of practical value for many gardens.—*COMPIER.*

#### OUR BORDER FLOWERS—MILKWORTS.

WHEN the earth has put on her mantle of living green it is truly said that flowers are blooming everywhere. Turn our eyes where we will they meet our gaze at every step, and our senses are regaled with their sweet perfume. While strolling along the woodland bank, by the rippling stream, the cheerful mead, the browed heath, or the verdant lawn, the wandering eye is often caught and charmed by that little inhabitant of those scenes, *Polygala vulgaris*, with its lovely blue flowers; and have we not paused and said to ourselves, What can it be? Perhaps we have torn it from its bed to secure a plant for cultivation or to store-up in our herbarium.

Various shades of colour are met with in this little group of plants from dark blue, rosy purple, pink, to white, yet they are *Polygala vulgaris* still. They may be brought into cultivation and afford pleasure to the cultivator on the rock or in the border. They will grow well in sandy loam, peat, and leaf mould mixed in the ordinary soil of the border. They are met with on the dry bank as well as in the moist meadow, and where we find them they look at home. They may be increased by division after flowering. When well established the less they are disturbed the better. *Polygala paucifolia*, said to be from America, is of very dwarf habit, and requires sandy peat and loam; it should have a favourable place on the rockery or among the alpine in pots. *Polygala alpestris* is only to be met with in choice collections; it should have a sunny situation on the rockery, and be attended to with water when required. *Polygala major* is of rather stronger habit;

it may have a place on the rockery or border planted in the compost named above.

*Polygala chamaebuxus* is the largest of the race, and of half-shrubby habit. Its leaves have a Box-like appearance, and the plant is of prostrate growth. It is said to have been introduced into this country more than two hundred years ago. It might be asked, Where has it been since? for seldom is it seen except in some nursery as a store plant. It is an early spring-blooming plant with two shades of yellow pea-like flowers, and what adds to its charms is that it affords us a most delicious perfume. It is increased by cuttings and divisions. It is invaluable for the spring garden, rockery, or border, and only needs to be known to be appreciated.—*Vermes*.

## ROYAL HORTICULTURAL SOCIETY.

SEPTEMBER 1ST.

THIS Exhibition is designated the Dahlias Show, but Dahlias constituted a very small portion of the display, and the blooms generally were small. The plants as a rule are backward this year owing to the wet and odd month of July, and on this account many notably good growers cannot exhibit in their usual style of excellence. By far the most attractive classes were the Gladioli. Of this, the finest of autumn flowers, splendid spikes were staged. Asters were also exceedingly fine. The Exhibition was not large, and did not show to advantage in the lengthy corridor, whereas in a smaller place, as for instance the Council-room, the effect would have been quite imposing.

In the open class for thirty-six Dahlias, distinct, Mr. J. Keynes, Salisbury, was the only exhibitor. His collection comprised beautiful, symmetrical, but on the whole not large blooms. Some of the best were Prince Arthur, Edward Purchase, William Keynes, Henry Walton, Juno, Flora Wyatt, Julia Davis, and two very fine seedlings. In the nurseryman's class for twenty-four blooms Mr. Keynes was again without an opponent. In this stand Pauline, James Cocker, Hugh Miller, Arbitrator, Queen's Messenger, John Standish, Annie Neville, and Henry Glasscock were very perfect.

In the amateurs' class for twelve blooms were five competitors, the most perfect stand coming from H. Glasscock, Esq., Bishop's Stortford. The blooms were not large, but their finish and refinement was very noticeable. They consisted of James Cocker, Miss Henshaw, Willie Eokford, Vice-President, John Standish, Acme of Perfection, Lady G. Herbert, Cremorne, Her Majesty, J. N. Keynes, Mrs. Harris, and James Service. The next best blooms in this class came from Mr. G. Smith, Edmonton. They were small but of perfect form, especially Charles Backhouse, Edward Purchase, and Willie Eokford. Larger blooms were staged by Mr. Anstiss, Brill, Bucks, and some of them were very perfect, especially Flora Wyatt, John Standish, and Edward Creed. Mr. Griffiths, Wood Green, was placed third with smaller blooms. In the open class for twelve Fancy Dahlias Mr. Keynes was the only exhibitor. The most attractive blooms were Flora Wyatt, Fanny Stark, Pauline, Parrot, Mrs. Saunders, and Egyptian Prince. In the corresponding class for amateurs, six blooms, Mr. Glasscock had charming blooms of Flora Wyatt, Louis Haslam, Grand Sultan, Viceroy, Pauline, and Mrs. Saunders; by Mr. Anstiss following. His best blooms were Rev. J. B. M. Camm, Egyptian Prince, and Mrs. Saunders.

**GLADIOLI.**—In the open class for twenty-four varieties some magnificent spikes were staged, as may be expected when such a grower as Mr. Kelway is beaten, as he was on this occasion by Messrs. Robertson & Galloway, Glasgow. This was a noble collection:—Monsieur Legouvé, Ondine, Hercules, Orpheus, Paotole, Psyche, Warrior, Adolphe Brogniart, Sylvia, John Waterer, Seda, Madame Desportes, and Amalthée were the best varieties. Messrs. Kelway had the second place, noticeable being Felix, Shakespeare, Osci, Scarpis, Mrs. Reynolds Hole, Hermannii, Palamedes, and Xerxes. The varieties named comprise some of the finest in cultivation. Mr. Douglas also had a collection which embraced some good spikes and bright-coloured flowers, and took the third prize.

In the open class for twelve varieties, Rev. H. H. Donbrain was first with grand spikes, every one of them good. Meyerbeer was especially imposing by its long symmetrical spike, and *Le Vase* by the brilliancy and texture of its flowers. Triumphant, Princess Mary of Cambridge, and Talisman were also very fine. Mr. Douglas, Loxford Hall, had the second place with mostly his own seedlings, but we fancied that this able cultivator was scarcely equal to himself on this occasion. In the amateurs' class for six spikes Rev. H. H. Donbrain was again in the ascendant, and Mr. Douglas was very close at his heels. A seedling, bright mauve and white, in Mr. Douglas's collection was very striking. The third prize went to Mr. Harding, gardener to Mrs. Benham, Syon Lodge, Isleworth.

ASTERS were very fine indeed, but, as pointed out by the Hon. and Rev. J. T. Boscowen, the ornamental and serrated paper in which some of the blooms were set detracted from the beauty

of the flowers, which undoubtedly showed to advantage on plain circular bases. For twenty-four French Asters in twelve varieties (open), Mr. Wheeler, Warminster, had the first place with some of the finest blooms which have ever been staged; Mr. Stickler, gardener to — May, Esq., Reigate, being second; and Mr. Morgan, gardener to Major Scott, Wray Park, third. And for Quilled or German Asters Mr. Wheeler was again in the first place; Mr. Benham, Baginbun, Newbury, being second. Mr. Morgan also exhibited, and Mr. Turner sent a collection of remarkably compact and distinct blooms of great merit.

For twelve pots of Asters (open), Mr. Dean, Ealing, was the only exhibitor, with massive pots of Victoria.

Messrs. Sutton & Sons, Reading, offered prizes of silver and bronze medals for collections of twenty-four Asters in twelve varieties, which were won by Mr. Morgan and Mr. T. Benham respectively. The blooms were very fine, and creditable alike to seedsmen and growers.

**HOLLYHOCS.**—In the nurserymen's class for twelve cut blooms Mr. Wheeler, Warminster, was the only exhibitor with fair blooms, which, however, had received injury from the weather or in transit. In the class for twelve double Zinnias Mr. Wheeler had the first place with very good and distinctly-coloured blooms, the second prize going to Mr. Morgan, gardener to Major Scott, the bright colours in this stand being particularly dazzling. For six Lilliums in pots Mr. Turner, Slough, was the only exhibitor. He had six pots of *L. auratum* averaging twelve blooms each, several of which measured 12 to 15 inches in diameter, and were very fine.

Mr. B. S. Williams exhibited an attractive collection of miscellaneous plants, amongst which *Odontoglossum Reezii* and *Casteya gigas* were noticeable amongst the Orchids; *Berkeleya*, Ferns, and Palms were exhibited in small but healthy plants, and conspicuous was half a dozen gigantic Cockscombs measuring 30 inches each from tip to tip. Mr. Aldous also staged a group of well-grown decorative plants. Extra prizes were awarded.

**FAIRY.**—In these classes there was a nice but not a large display, and in regard to the Apples some mistakes were apparent.

For nine fruits of Irish Peach Apple the premier award went to Mr. B. Dean, Ealing, for a dish bearing a greater resemblance to Red Astrachan than Irish Peach. For the same number of Early Julien, Mr. Harding, Syon Lodge, Isleworth, had the first prize for a conical-shaped Apple, which if Early Julien at all is of an abnormal shape; a dish of what appeared to be the true Early Julien by its side being passed by unnoticed. For six fruits of Lord Suffolk, Mr. Brush, gardener to Lady Home Campbell, The Grove, Pinner, was placed first, and Mr. Dean second, for very good fruit. In the class for nine fruits of any kind of dessert Apple the first award went to Mr. Benham for Red Astrachan, Mr. Douglas being second with Kerry Pippin. This is an instance of quality succumbing to colour, of intrinsic table merit to outward show.

For six fruit of Souvenir du Congrès Pear Mr. Douglas had the premier award for a very fine dish. For six fruits of Madame Treve Mr. Wheeler, Warminster, and Mr. Douglas were placed first and second respectively; and for the best dish of any other dessert Pear Mr. Douglas won with a splendid dish of Williams's Bon Chrétien; Mr. Gardiner, gardener to E. P. Shirley, Esq., Lower Kington Park, being second with smaller specimens of the same kind.

**PLUMS.**—For six varieties of nine fruits each the first award went to Mr. Bridgeman, gardener to J. S. Cook, Esq., Great Marlborough, for Kirke's, Green Gage, Jefferson, Washington, Reine Claude Violette, and Diamond. Mr. Burnett, gardener to Mrs. Hope, Deepdene, being second with Dennistone's Superb and Victoria in addition to those above named; the third award going to Mr. Record, Vinters Park, Maidstone. These collections were very good, the third being nearly equal to the first, and quite so to the second. The class for three varieties Mr. Bridgeman had the first place with Kirke's, Jefferson's, and Washington; Mr. Burnett being again placed second, and Mr. Record third.

For the best single dish of Peaches the award went to Mr. Dean, Ealing, for fine fruit of Grosse Mignonne; and for the best dish of Nectarines Mr. Douglas won with a handsome dish of Pine Apple. An extra prize was awarded to Mr. Dean for Moorpark Apricots.

**FRUIT COMMITTEE.**—Henry Webb, Esq., in the chair. Two sorts of autumn-bearing Raspberries—viz., Surpasse Merveille, Saisons Blanc and Saisons Rouge were sent from the Society's gardens. The autumn fruit of Raspberries is generally wanting in flavour.

Melon Duke of Connaught was sent by Mr. C. Osman of the Metropolitan District Schools, Sutton; it was not in good condition. A hybrid Melon was also sent by Mr. G. Anderson, The Gardens, Slopes Wallacey, but the flavour was very bad.

Seedling Damsons No. 1 and 2 were sent by Mr. W. Hoxley, Teddington, Beds, but they are not materially different from the ordinary Damson.

The Rev. A. Rawson, The Vicarage, Bromley Common, sent

branches of Siberian Crab and Denyer's Victoria Plum, loaded with fruit, to show their free-bearing character.

A. Smee, Esq., Finsbury Circus, sent fruit of Banani Apple, an excellent early sort, very distinct in appearance. A new early seedling Apple was sent by Mr. T. Thirkel, seedman, Wisbech. The fruit was very highly coloured, conical-shaped, but deficient in flavour.

Mr. Dancer of Chislewick sent a dish of the Sultan Plum from a standard tree. It is an excellent kitchen Plum.

A white-spined Cucumber was sent by Messrs. Kelway & Co., Langport. From the accompanying photographs it is evidently a very free-bearing sort; but it was not thought superior to other white-spined sorts.

Mr. B. Dean of Ealing sent specimens of Cobbett's Maize and the new Japanese Radish reported upon at the last Meeting. Excellent specimens of Lord Suffield Apple and Black Diamond Plums were sent by Mr. T. Smith of Iwer. Mr. Voice of Horley sent an improved Cucumber frame, very light in appearance, and seems exceedingly well adapted for growing the fruit. The frame 6 feet by 4 had twenty fine specimens, some of them 20 inches long. Mr. G. Sage of Ashridge Gardens sent a collection of eight sorts of Filberts and Cob nuts; the branches were loaded with fine fruit. A vote of thanks was given for them. Mr. W. Paul of Waltham Cross sent a collection of fifteen sorts of Apples, seven sorts of Pears, and five sorts of Plums, in very good condition.

**FLORAL COMMITTEE.**—Mr. B. S. Williams in the chair. First-class certificates were awarded to Mr. J. Croucher for *Begonia metallica*, a bulbous-rooted variety with lustrous foliage and a pink flower; also for *Fourcroya variegata*. To Mr. Rawlings for *Dahlia*s J. C. Quennell, orange, and John Bennett, yellow and vermilion. Also to Mr. C. Turner, Slough, for *Dahlia* Triumph, a perfect miniature bloom of maroon-scarlet colour; and for Rose Rev. J. B. M. Camm, the queen of sweet Roses, which should find its way into every garden. To Mr. Keynes for *Dahlia*s Lord of the Isles, a splendid yellow of fine shape; *Magpie Fairbairn*, rosy lilac, of fine form; Charles Leicester, a rich maroon red, of great quality; and John Downie, a purple maroon, a large full flower; and to Mr. Bekford, for *Verbena* Ann Spiers, bluish, with a pink eye, large truss and pip. Second-class certificates were awarded to Mr. Bull for *Pescatorea Dayana splendens*; to Mr. Turner for *Dahlia* Yellow Globe; and to Mr. Keynes for *Dahlia* Dr. Livingston, rosy lilac and yellow.

Mr. Williams exhibited a collection of plants consisting of *Orchids*, *Dracontias*, &c. Mr. Harris and Mr. Turner staged *Dahlia*s; and Mr. King, gardener to Col. Holder, Binfield, Berks, sent a Silver-variegated *Pelargonium* Marion Harper, very free. Out specimens of *Aristolochia gigas* came from Mr. Smee, Finsbury Circus; *Crimums* from Mr. Williams, Fortis Green, Finchley; and from Mr. Green Streptocarpus Greenii, a distinct greenhouse plant previously noticed. From Messrs. Osborn & Sons, Fulham, *Pyrethrum leucostemum aureum*, var. Out specimens of *Clematis* from Mr. Noble, Bagshot, Gladioli from Messrs. J. Kelway & Son, and *Phlox Drummondii* from Mr. Dean.

### THE YUCCA, GOOD SPECIMENS.

I THINK it will be admitted that few plants give a more tropical aspect to outdoor vegetation than the Yucca, more especially where it is met with in a thriving condition and its surroundings are of a becoming kind. But it is not one of the class of plants that admits of being shifted about from place to place, nor will it submit to the ever-changing character that fashionable flower gardening has now-a-days subjected so many of its tenants. Although when grown in a pot it can be moved at pleasure, but when planted out it ought to be allowed to remain several years in the position chosen for it, taking care that no encroaching neighbour invades its territory; and if the situation, &c., be a suitable one for it, and the season favourable, its flowering may be depended upon in due time. It flowers freely, especially after fine hot summers or dry autumns; that of last year being on the whole favourable, the display of blooms this season has been better than for some years, and we all know that when they do bloom well they are not easily excelled by flowers of any other kind. The spikes of fully expanded blossoms being certainly longer and more dense than even the best-grown Hollyhocks, and the rigid upright growth enhances its value.

Unfortunately its season of blooming is not like that of most other plants limited to a particular time of year, but it would seem that whenever the plant attains the flowering condition it endeavours to do so, and if that should be in autumn, well then all hopes of a successful issue is gone; and such being the case last autumn, several plants that had shown bloom and advanced a little way towards that object were arrested by the severe weather, and were truly and practically "nipped in the bud." Some, however, did not ad-

vance thus far, and have bloomed well this season in most places where they are grown. Amongst others in this neighbourhood was a fine plant in the garden of L. D. Wigam, Esq., at Oakwood, near Maidstone, which had three fine spikes of bloom upon it; and as we all know only a comparatively small proportion of plants bloom every year, and with only one spike each, the other is the more remarkable, and I have only once seen it equalled, and that was here seven years ago, when a plant, I think of *Y. recurva*, had three spikes of bloom upon it all at one time, and each about 10 feet high; but we have not any this season with more than one stem, and as several were destroyed, or rather their bloom spikes were killed in the winter, we have not had so many this season as has often been the case. Neither have those of *Y. recurva* been so good as they often have been; but one of *Y. gloriosa*, or what I have always called *gloriosa*, a rigid-leaved one, the leaves in the centre slightly ribbed—no doubt to assist their stiffness; this plant I thought had bloomed so well that I took the trouble of counting the flowers, as well as measuring it.

The plant alluded to grew in a border along with several others in a sheltered place. A wall 10 feet high sheltered it on the north, and trees and shrubs did the same in other directions, it being, however, tolerably open to the south. The stem of the plant was destitute of leaves for about 18 inches up; after which a dense mass of foliage terminated in the flower spike, which up to the last remained as nearly upright as possible from the collar of the plant to the tip of the spike. The said spike consisted as usual of a central stem and a number of branchlets of each from 9 to 18 inches long, and so densely loaded with flowers that the weight of the whole must have been no slight matter packed as they were so closely together. The height of the plant and stem to the base of the lowest branchlet was 5 feet 6 inches, and from the base of the lowest branchlet to that of the highest one was 5 feet; while the centre spike rose 1 foot 7 inches higher still, making the total height of the plant when in flower, measuring from the ground, 12 feet 1 inch, or the length of flower spike 6 feet 7 inches, every part of which was densely packed with its beautiful egg-shaped blooms of a beautiful pale colour, and each about the size of that of a duck's egg or larger. The total number of flowers was 701; the number of branchlets being forty-two, each having from nine (the lowest number) to twenty fully perfected blooms upon it, the number on the terminal spike being thirty. It would be wrong to say that the whole of these were all out at one time, but it is not too much to say that quite five hundred must have been in perfection at once, and the others in advanced bud. Has that been excelled anywhere? and under what circumstances was the plant grown that excelled it?—J. ROBSON.

### NEGRO LARGO FIG.

A few years ago this variety was strongly recommended by Mr. Fleming, but as it had only just been put into Messrs. Veitch's hands for propagation, plants were not attainable. This year two plants, which I obtained from that firm, have fruited, and perhaps it may not be uninteresting to your readers to learn the result.

The plants are vigorous growers, and I define this by saying that when stopped at the fifth leaf, instead of merely forming a dormant bud they shoot forth again strongly. The fruit is large, high flavoured, and earlier than the average, but it has one defect—namely, that the neck, though thick, is not strong enough for the fruit, and when the latter falls downwards in ripening the neck generally gives way, splitting in two, and the fruit breaks off. It might, however, be tied up. So, on the whole, I recommend this variety as worthy to be grown even in a very limited collection.—G. S.

### NEW BOOK.

*Insectivorous Plants.* By CHARLES DARWIN, M.A., F.R.S., &c. With illustrations. London: J. Murray.

THIS, like all the writings of Mr. Darwin, is very interesting and exhaustive. All who are conversant with plants know that the leaves of the Venus's Fly-trap, *Dionaea muscipula*, and of the Sundew, *Drosera rotundifolia*, have the power to close over any insect that alights upon their upper surface; but no one has examined the phenomena so accurately as Mr. Darwin. We will combine several extracts from his pages relative to the Sundew:—

"If a small organic or inorganic object be placed on the

glands in the centre of a leaf, these transmit a motor impulse to the marginal tentacles. The nearer ones are first affected, and slowly bend towards the centre, and then those farther off, until at last all become closely inflected over the object. This takes place in from one hour to four or five or more hours. The difference in the time required depends on many circumstances—namely, on the size of the object and on its nature—that is, whether it contains soluble matter of the proper kind; on the vigour and age of the leaf; whether it has lately been in action, and, according to Nitschke,\* on the temperature of the day; as likewise seemed to me to be the case. A living insect is a more efficient object than a dead one, as in struggling it presses against the glands of many tentacles. An insect such as a fly, with thin integuments, through which animal matter in solution can readily pass into the surrounding dense secretion, is more efficient in causing prolonged inflection than an insect with a thick coat, such as a beetle. The inflection of the tentacles takes place indifferently in the light and darkness; and the plant is not subject to any nocturnal movement of so-called sleep."

"I have repeatedly found that the tentacles remain clasped for a much longer average time over objects which yield soluble nitrogenous matter than over those, whether organic or inorganic, which yield no such matter. After a period varying from one to seven days the tentacles and blade re-expand, and are then ready to act again. I have seen the same leaf inflected three successive times over insects placed on the disc; and it would probably have acted a greater number of times. Particles of carbonate and phosphate of ammonia and of some other salts, for instance sulphate of zinc, likewise increase the secretion."

"The absorption of animal matter from captured insects explains how *Drosera* can flourish in extremely poor peaty soil, in some cases where nothing but *Sphagnum* Moss grows, and Mosses depend altogether on the atmosphere for their nourishment. Although the leaves at a hasty glance do not appear green, owing to the purple colour of the tentacles, yet the upper and lower surfaces of the blade, the pedicels of the central tentacles and the petioles contain chlorophyll, so that, no doubt, the plant obtains and assimilates carbonic acid from the air. Nevertheless, considering the nature of the soil where it grows, the supply of nitrogen would be extremely limited, or quite deficient, unless the plant had the power of obtaining this important element from captured insects. . . . A plant of *Drosera*, with the edges of its leaves curled inwards, so as to form a temporary stomach, with the glands of the closely-inflected tentacles pouring forth their acid secretion, which dissolves animal matter, afterwards to be absorbed, may be said to feed like an animal. But, differently from an animal, it drinks by means of its roots; and it must drink largely, so as to retain many drops of viscid fluid round the glands, sometimes as many as 260, exposed during the whole day to a glaring sun."

"The glands alone in all ordinary cases are susceptible to excitement. When excited they do not themselves move or change form, but transmit a motor impulse to the bending part of their own and adjoining tentacles, and are thus carried towards the centre of the leaf. Strictly speaking, the glands ought to be called irritable, as the term sensitive generally implies consciousness; but no one supposes that the Sensitive Plant is conscious, and as I have found the term convenient I shall use it without scruple."

We pause over the last sentence, for we cannot comprehend how a plant can be irritable without being sensitive, nor how it can be sensitive without being aware of a sensation. There are too many phenomena evidence that they are sensitive—that they are conscious of what will benefit and what will injure them—for us to conclude otherwise. How else can it be explained that they direct their roots to the surface if this be manured? How else can it be explained that they extend their stem and branches towards the light?

"Everybody must have observed that they bend towards the point whence its brightest influence proceeds. M. Bonnet, the French botanist, demonstrated this by some very satisfactory experiments, in which plants growing in a dark cellar all extended themselves towards the same small orifice admitting a few illuminating rays."

"Almost every flower has a particular degree of light requisite for its full expansion. The blossoms of the Pea and other papilionaceous plants spread out their wings in fine weather to admit the solar rays, and again close them at the approach of night. Plants requiring powerful stimulants do not expand their flowers until noon, whilst some would be destroyed if compelled to open in the meridian sun—of such is the Night-blooming *Cereus*, the flowers of which speedily droop, even if exposed to the blaze of light attendant on Indian festivities."

"These and other facts surely demonstrate sensation to exist

in plants as acute as that possessed by the superior or more perfect classes of animals, yet they certainly are satisfactory evidence that some plants possess it to a degree nearly as high as that with which the zoophytes, or even the polypus and leech, are gifted. Some of these animals may be cut into pieces, and each section will become a perfect individual; of others, their heads being taken off may be grafted upon other bodies; and a third class of them may be turned with their insides outwards without any apparent inconvenience."—(*Science and Practice of Gardening*.)

## THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 4.

No, I am not prepared to vouch for the truth of the story that Clerkenwell received its name from the circumstance that an early apostle of teetotalism had there a ducking from the unappreciative mob, which declared that the clerk should have enough of water if he so much commended it, while the lads ran away from the watch with the cry, "The clerk's in the well! the clerk's in the well!" And to some extent the description given of the place by an enthusiastic writer of several centuries ago is also open to doubt, for he dilates on pleasant fountains, cool valleys, breezy hills, and beautiful gardens, which, if ever they existed, have left no trace, or next to none, in Clerkenwell of the present. But his narrative is not a pure romance, and the history of some of our earliest nursery gardens at least is closely connected with that of Clerkenwell—that is, using the word in a qualified sense, for hardly a nursery approaching in its character to what we now understand by that term can be pointed out until the Stuart period. In the early English attempts at methodical gardening there was very little "nursing;" it was thought sufficient to sow the seeds or insert the slips, and Nature was left to do the rest. And yet in some things our ancestors were rather particular, not to say fussy, as appears from a rare pamphlet written by a citizen in the form of a dialogue, the object being the commendation of the beauties of Moorfields. He chronicles the exact number of trees within the enclosure, amounting to two hundred, fourscore, and eleven. Outside, he says, there were a few more, which he roughly estimates at about thirty or forty. It would not have been a very serious piece of business for one wealthy citizen to have planted all these trees, but it seems they were the gift of various persons, and so they were distinguished as they grew by the names of the donors, or by some event in their history, so that most of these trees (Elms I suspect) had their proper names. One of them, writes our author, is called "Stubbs his tree," since it was planted by Christopher Stubbs, a principal porter of Blackwell Hall. O William Shakespeare! there is much in a name, even in the case of a tree.

Having alluded to the name of the district, once undoubtedly rural, but now far too near the centres of London activity to present any attractions except to the man of business or the antiquarian, I might add that the clerks' well really had its designation from an annual custom of the clerks, who would meet close by this well to enact miracle plays. The well or spring, with another close to it, lay in a little valley, and as the ground rose gradually to the south and west spectators could conveniently group themselves on the slopes, these same slopes being subsequently found to be admirably suited for gardens. Since there was scarcely any notion amongst early gardeners of such a thing as artificial drainage, they frequently made choice of hills, for, especially near London, they had large experience of the disadvantages arising from marshy or swampy ground. As London increased during the fifteenth and sixteenth centuries the well-to-do citizens were led to go farther afield, and as they could not have garden plots to their taste in the city they went out to Clerkenwell, or to the adjacent manor of Finsbury, and took land there. And those who are curious in these matters may still inspect an old document which contains a minute specification of the way in which the great garden and orchards of the manor of Halliwell (*alias* Finsbury) was subdivided into allotments during the reign of Queen Elizabeth. There is a long list of various citizens, whose trades or occupations are duly specified—a goodly number of them are merchant tailors; but in the account of one plot of land, called Benhil Field, abutting south on a highway known as Chiswell Street, and north on the highway from Wenlock Barn to the well of St. Agnes is Clere, the whole amounting to 23 acres, we discover, with several others, one William Gill, gardener, the only person seemingly,

\* "Bot. Zeitung," 1860, p. 24.



of about twenty, who cultivated the ground in this district with a view to the making of a living by so doing. In another place the same Gill appears as the owner of a tenement and gardens on the east side of Golding Lane. Possibly he did not succeed very well, for, as I have already hinted, citizens and gentlemen who had gardens and orchards used to allow their servants to dispose of any excess of produce, which was not encouraging to those who had begun to follow gardening as a business. I am inclined to suspect that transactions by way of barter were not uncommon amongst the citizens, and those who didn't cultivate gardens were no doubt glad to get fruit and vegetables from their friends or neighbours who did. The adjustment would be awkward in some instances, as in a computation as to how many Cabbages must be handed over to pay for a new bow and arrows, or to work out the price of a roll of cloth in Artichokes and Melons might be puzzling. Meanwhile it remains as a singular fact, against which I do not believe that any contradictory evidence can be brought, that the earliest persons who professedly reared plants to make a profit by them were the dealers in herbs. Ordinary individuals felt no hesitation about growing vegetables and fruits, but they were afraid to tamper with plants popularly accredited with mysterious virtues, though many of these "simples" had very slight efficacy. It is likely, too, that in the more war-like periods of our history the pursuit of gardening was viewed with a degree of contempt; and though servants must necessarily have been thus employed in the establishments of the citizens and others, men quite free to choose may have preferred anything to being a gardener. Hence it is not until 1616 that we have recorded the formation of the Gardeners' Company with these arms, "the field a landscape, the base variegated with flowers, a man as the device vested round the loins with linen digging with a spade. Crest, a basket of fruit. Supporters, two emblematic female figures with cornucopias representing plenty." The motto of the words, "In the sweat of thy face thou shalt eat bread," is not particularly applicable, at least in these times there are many employments which excite perspiration far more than the gardener's, unless, indeed, you are entirely "amongst the stoves." I don't know whether the Company had its quarters at one time in "Gardeners' Lane, Thames Street, where there was a full-length wall entablature of a gardener with a spade, and the date of 1670. Running northwards from the Thames out of the same street is Garlic Hill; and close to it the church of St. James's, Garlickhith, also kept in remembrance the fact that on this part of the river's bank Garlic used to be sold, not grown, as some persons have conjectured. Our ancestors were in their love of Garlic notably different from the most of us.

During the seventeenth century, and even in part of the eighteenth, those who endeavoured to make a profit in the vicinity of London by the culture of gardens and orchards not only sold the bulk of their produce on their premises, but actually saw it consumed there. The worthy cit, with his "better society" and the cutlins, took his way once or twice a-week to the suburban districts and devoured as much fruit as, by proper allowance, might have sufficed for several days. Many such excursions for fruit-eating and the like are duly set down by the indefatigable Pepys in those memoirs which have amused the world, and of which, by-the-by, we are ere long to have a new edition, containing matter hitherto suppressed or undeciphered. At last, however, acting on the proverb that "the traveller spends more than the abider," Londoners found out that vegetables and fruit might very conveniently be brought to their doors, and save them the trouble of going out in order to revel in them. Hence the race of coster, or costardmongers, who supplied the streets at a cheap rate long before shops were opened for the sale of such commodities. The Cherry gardens at Clerkenwell, situate near Bowling-green Lane, took their name from the fruit that was most in request there; and exactly two hundred years ago a chronicler reports that there were only six houses in the locality, and a great extent of orchards and gardens. For a good while this place retained its fame as a tea garden after the encroachments of houses and the springing-up of larger market gardens in better situations north and west had rendered the Cherry gardens of small importance otherwise. Then there was a Mulberry garden at Clerkenwell as well as at Pimlico, the site of which is now occupied by the House of Detention; and though it took its name from the Mulberry there was a great variety of trees planted in the extensive garden grounds situate here in the eighteenth century. No doubt the Mulberries had an earlier date; we may reasonably suppose that

these were planted in the reign of James I., when that sagacious monarch offered packets of Mulberry seed to all persons who would undertake to sow them, hoping to see himself, or to prepare the way for, an extensive production of English silk. Also we are informed that in 1609 a French gentleman distributed about a hundred thousand young trees in England of the common or black Mulberry. These must have been in good bearing condition in 1742, when the Mulberry gardens were opened as a public resort, and the land was under cultivation for about fifty years more, when it was cleared for the builder. These gardens did not occupy an elevated position in Clerkenwell, but laid rather in a hollow far below the level of Pentonville. On ground decidedly higher—so much elevated, indeed, as to be called the "Mount"—was once a vineyard, even yet connecting itself with the present hour by the locality that bears the name of Vineyard Walk. It was then surrounded by gardens, and on the western slope of this hill or mount the Vines were trained row above row, and on the top of the ascent was a cottage occupied by the individual who had the Vines in charge. From an old advertisement it would appear that there was a fishpond on these premises which was visited by the curious. The Clerkenwell Vines were probably in their most flourishing state during the sixteenth century.

At the corner of Ashby Street, Clerkenwell, stood the old Manor House, from the history of which it is worth our while to extract this fact, that in the eighteenth century, between the years 1780-50 or some part of that time, it was in the occupation of an eccentric herbalist, Dr. Newton. He prided himself upon his knowledge of botany, and kept a private asylum for lunatics! There were several acres of land attached to the house (which was also called "Wood's Close"), and these the doctor laid out rather elaborately as a botanic garden. He had the honour of a paragraph in the *Daily Post* of Aug. 25th, 1780 (just in the dull period when newspapers are still glad to record enormous Gooseberries and the like), mentioning a curious Lily grown in this garden at Clerkenwell, having a cluster of roots proceeding from the top of the stalk. The book on which Dr. Newton had worked for some time, but died ere he completed it, was published by his son in 1752, containing with plates medico-botanical information "of the period."—J. R. S. C.

#### CLEVELAND HOUSE, CLAPHAM PARK.—No. 1. THE RESIDENCE OF S. RALLI, ESQ.

Some time ago "WILTSHIRE RECTOR" in recording a visit to Balham spoke of it as "treey" Balham. A more truthfully descriptive term could not have been selected, for although almost within cannon-shot of Westminster Abbey trees abound everywhere.

Balham is the nearest railway station to Cleveland House, therefore at Balham station I found myself on a sultry day in August. On descending from the platform a word of the Rector's advice recurred to me, and which I turned to useful account. "If you desire," said he, "intelligible directions appeal to a butcher's boy." I did so, who in response to my inquiry for Cleveland House stated, "Go straight a-head, sir, until you come to the second turning on the right—a butcher's shop is at the corner—follow the turning as straight as you can; you will come to two or three branch roads, but follow the straightest, which will take you to Thornton Road; then turn again to the right, and the second gate on your right leads to Mr. Ralli's. If you keep in mind these three 'rights' sir, you cannot get 'wrong.'" That was the butcher's boy's direction, which cannot be improved on, and which is therefore given for the benefit of any who may be bound on the same pilgrimage as myself.

I trust the number of such pilgrims may be great, for a floral feast is spread at Cleveland House which, though on a small scale, is probably not to be surpassed in the three kingdoms in the perfectness of the style known as carpet bedding. All who admire this mode of garden decoration should see this admirable example of Mr. Legg's skill, and they will be confirmed in the correctness of their taste in pronouncing it beautiful. All who do not so readily appreciate this style of gardening should see it also, when, if they are not at once converted to the mode, must admit its effectiveness, or, at any rate, they will not be able to speak slightly of its decorative force. Mr. Peach may come all the way from Yorkshire, and will not consider his time wasted in an inspection of these finished beds; Mr. Luckhurst, with his high ideals of garden

decoration, may venture a journey from Sussex, and will, mayhap, find his ideal realised; "D., Deal," the redoubtable champion of florists' flowers, may come, and perhaps his Carnations may give him greater enjoyment by the contrast of this style of gardening and that; and Mr. Douglas may arrive from Essex, and the sweetness of his Phloxes and the stateliness of his Gladioli will be none the less enjoyable after the change of fare which he will admit is spread by a master's hand.

All these and others may come and not feel that they are intruders, for I have authority to say that Mr. and Mrs. Balli,

with a generosity which all true gardeners must appreciate, are desirous that that which is so greatly enjoyed by themselves should also be enjoyed by others. For that graceful act of generosity the whole gardening fraternity owe the owners of this garden a hearty vote of thanks.

Yet this is not a great but a small garden, the part under notice not exceeding two acres; but if small it is good both in its design and perfect keeping. The mansion is a square erection in the Grecian style of architecture. On the south-west front is a terrace, at the foot of which are the almost matchless

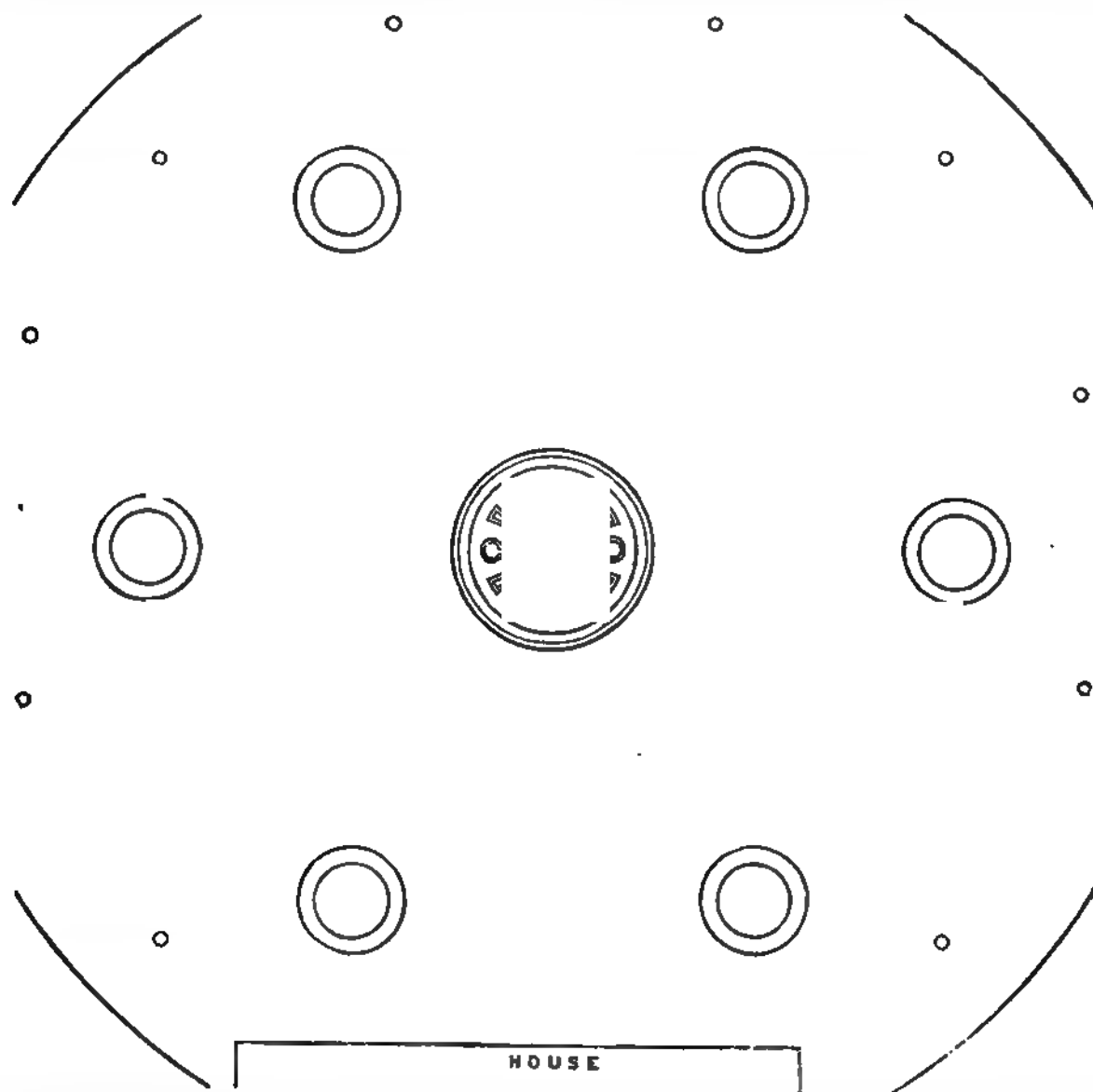
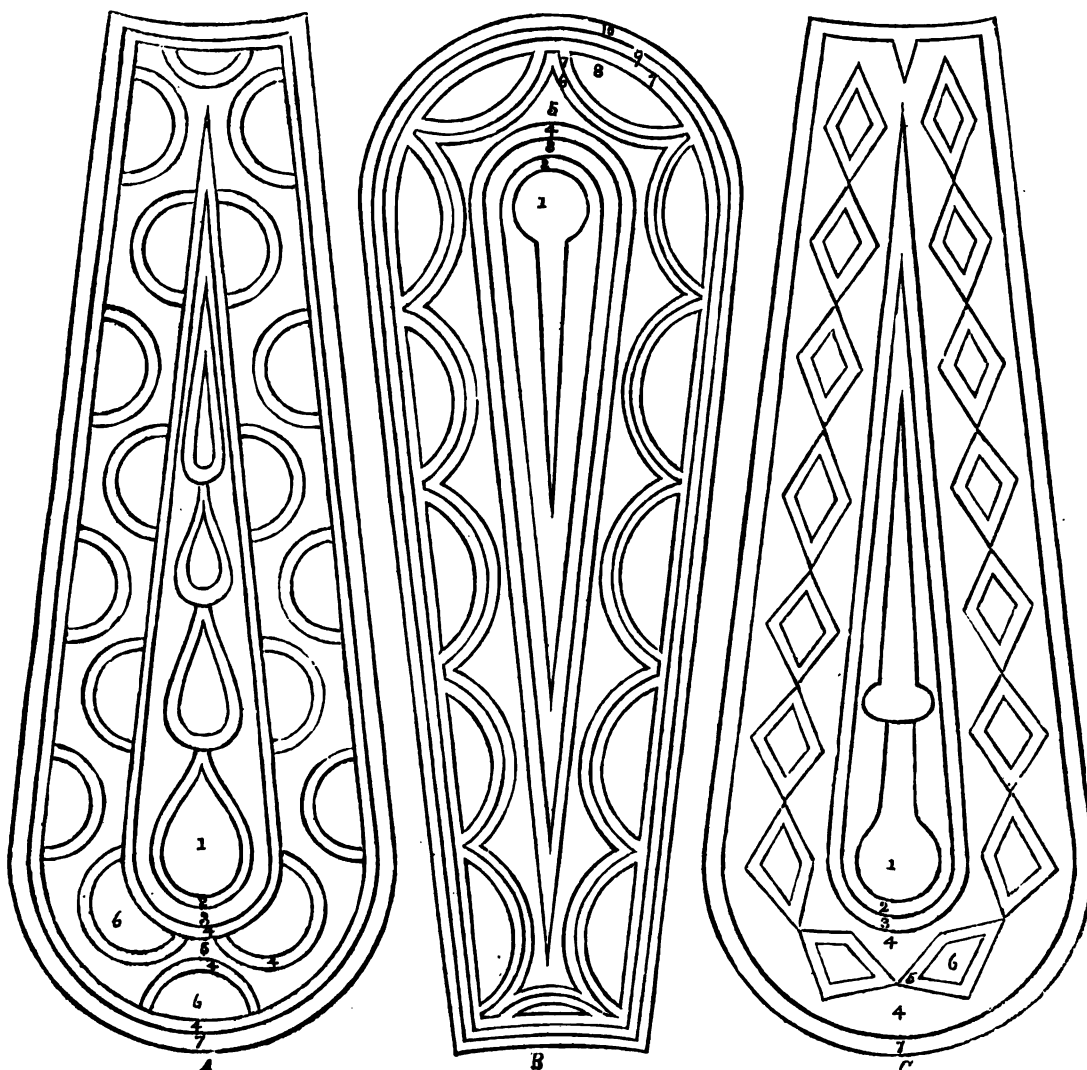


Fig. 40.

carpet beds. They are arranged on a circular piece of lawn about 60 feet in diameter, which is surrounded by a walk, and bounded opposite the house by a raised bank of evergreens fringed with *Ricinus*. This green fringe is an appropriate framework for the brilliant picture which it partly encircles. The principal beds are only seven in number—a circular bed 12 feet in diameter, and six oblongs each 20 feet in length, and of an average width of 6 feet. In these beds—a border 60 yards long by 8 feet wide, and a few other minor beds—upwards of sixty thousand plants are arranged, and there is not in carrying out the designs one plant too many or—such is their completeness—one too few.

The beds are raised—that is, ramped up by turf to about a

foot above the lawn level, and the surface of each has a very gentle rise towards the centre. In planting and finish they are perfect, and in colouring brilliancy is combined with chasteness. Rich tones are imparted by Golden Feather and *Alternantheras*; a cool yet lively character is given by the free use of *Mesembryanthemum cordifolium variegatum*; while quietness and repose are afforded by a dense neutral carpet of *Sedum glaucum*, brightened gently yet effectively by glowing tufts of the lovely alpine plant *Nertera depressa*. The association of these two lowly gems is the *chef-d'œuvre* of Mr. Legg's taste. The dense and brilliantly-berried *Nertera* nestling in the silvery-grey carpet of the miniature *Sedum* is a happy idea admirably carried out. If the birds do not carry off the berries



## MODE OF PLANTING THE BEDS.

## BED A.

1. *Tagetes signata pumila*.
2. *Mesembryanthemum cordifolium* variegatum.
3. *Alternanthera amabilis*.
4. *Pyrethrum Golden Feather*.
5. *Alternanthera paronychioides* major.
6. *Echeveria secunda glauca* and *Sedum glaucum*.
7. *Alternanthera amona*.

## BED B.

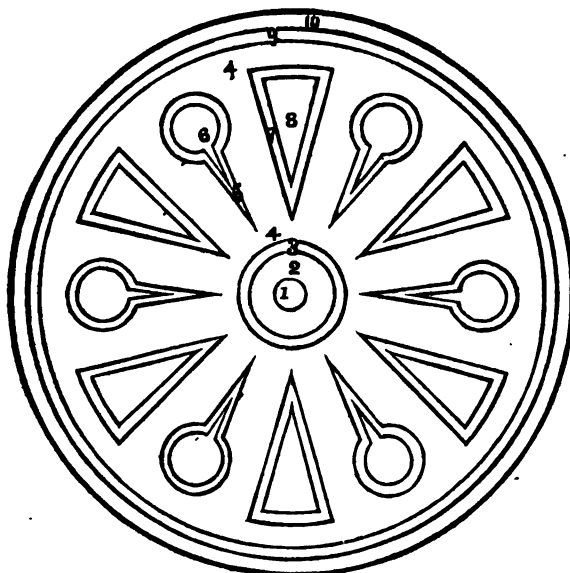
1. *Santolina incana*.
2. *Alternanthera versicolor*.
3. *Mesembryanthemum cordifolium* variegatum.
4. *Alternanthera amabilis*.
5. *Pyrethrum Golden Feather*.
6. *Alternanthera amona*.
7. *Echeveria secunda glauca*.
8. *Sedum glaucum* dotted with *Nertera depressa*.
9. *Alternanthera paronychioides*.
10. *Stellaria graminea aurea*.

## BED C.

1. *Alternanthera paronychioides*.
2. *Sempervivum calcaratum* and *Sedum glaucum*.
3. *Pyrethrum Golden Feather*.
4. *Alternanthera magnifica*.
5. *Mesembryanthemum cordifolium* variegatum.
6. *Pachyphiton bracteatum* and *Sedum acre elegans*.

## BED D.

1. *Dracena indivisa*.
2. *Golden Feather Pyrethrum*.
3. *Alternanthera paronychioides*.
4. *Mesembryanthemum cordifolium* variegatum.
5. *Sempervivum californicum*.
6. *Alternanthera amona*.
7. *Echeveria secunda glauca*.
8. *Tagetes signata pumila*.
9. *Alternanthera paronychioides*.
10. *Stellaria graminea aurea*.



D  
Fig. 41

the beauty of this combination will be sustained throughout September. As seen from the terrace these beds are simply beautiful, while each will bear the closest examination; but to comprehend their beauty to the fullest extent they must be looked down upon from the upper windows of the mansion. For that privilege I am indebted to the special kindness of Mrs. Ball, and I have been thinking of it and dreaming about it ever since.

In these elaborate beds, which are so full, level, and smooth,

with sharply-defined lines of colour, now brilliant and now soft, not one flower is to be seen. It is carpet bedding *par excellence*, and proves that no flowers are required. Even blue Lobelias would have spoiled this design, for, as the present season has proved, they cannot be kept within the precise bounds required. Mathematical precision is the very essence of this mode of garden decoration. There must be no uncertainty as to what height and breadth a plant will grow. Ideal lines must be drawn, and beyond or above these the plants must not be permitted to travel, and, further, they must be of a nature not to receive injury to health or appearance by being restricted within these limits. These conditions cannot be attained where flowers are admitted. It is the judicious employment of foliage alone which constitutes true carpet bedding, which neither receives injury by sun nor rain, and which affords all the colours and shades required to create an imposing effect. The effect of these beds is due to foliage alone, with the one solitary exception of the bright clusters of berries of *Nertera depressa*, which stud, like brilliants in a silvery sea, the smooth carpet of *Sedum glaucum*.

How are such panels as *Tagetes* and *Golden Feather* kept to the level of *Alternanthera amara* or the *Sedum* above mentioned, which does not grow more than 2 inches high? It is not only the result of pinching the tall plants—for that alone would not suffice—but also by raising those which are of dwarf close growth. The soil at planting time for one is raised, while the site for another is sunken. The centre bed, fig. 41, affords a clear example. The groundwork is composed of *Mesembryanthemum*, the panels being formed of *Tagetes* and *Alternanthera*. Had all been planted on the same level the severe pinching of the *Tagetes* to keep it down to the required level would have marred its effect, but by planting it in panels a few inches below the bed level, and by planting the *Alternanthera* on mounds an inch or two above the said level, the surfaces of each plant are on the exact level required. To this care Mr. Legg mainly attributes his success. He knows the habit of each plant, and provides accordingly by sinking the lines of those which grow tall and raising the sites of those which grow dwarf. More time is absorbed in planting, but it is recovered again by less being devoted to pinching. But to these beds are ungrudgingly devoted time, skill, and labour (for they cannot be produced without), but the greater the investment of means the greater is the triumph achieved.

Unless both skill and labour can be commanded carpet bedding should not be attempted, for without these essentials there can be no success, but with them a picture may be wrought such as it is impossible to justly portray by either pen or pencil. To attempt an engraving of these beds would only be a libel on the beds themselves, but a design with the mode of planting will give the best idea of the most advanced and perfect type of carpet bedding of the day. The design, which is simple and effective, is adapted to either a large or a small garden, and the form of the beds is such as to afford scope for working-out striking patterns in planting. Fig. 40 shows the design greatly reduced, and which shows also the outer circle of dwarf Conifers. The figs. on page 207 show the beds on a scale of a quarter of an inch to the foot, and the mode of planting. They are planted in duplicate.

It should be noted that the carpet beds, as will be seen by the general plan, are relieved by circles; these are filled with subtropical plants, which afford an agreeable relief to the bright colouring of the carpetwork. These beds are filled with *Ferdinandia eminens*, edged with *Chamaepycnos diacantha*, *Wigandia* and *Coleus*, *Melanthus major* and *Coleus*, *Canna* and *Salvia argentea*, *Ricinus* and *Chamaepycnos cassabona*. Beyond the beds is an outer circle of choice Conifers planted at wide intervals.

The next garden front—the north-east—is totally different to this, from which it is judiciously separated by a raised scroll-shaped bed of *Rhododendrons*. It is a simple expanse of lawn perfect in texture and keeping. It contains only one solitary carpet bed near the front door, and along its margin are small specimens of rare Conifers, as *Sciadopitys verticillata*, *Cryptomeria*, *Retinosporas*, &c. This open expanse of lawn is an example of good taste. But let us look at its boundaries. Its furthestmost boundary is artistic beds of shrubs, through the foliage of which a glimpse of the vineries is obtained, but the eye is irresistibly drawn to the left to the glorious bank of flowers. This bank is steep and surmounted by evergreens which screen the plant houses and frame ground. The bank is 60 yards in length by 8 feet in width, and is of graceful curvature. It is a striking design of flowers

and foliage, the *Coleus* especially being in splendid health and colour. It is brightened by *Geraniums*, and edged with *Lobelia* and *Hebeveria secunda glauca*. In design and quality it is impossible to imagine anything more imposing. It is a brilliant boundary to a velvety lawn, and with the beds just noticed, drew forth the following exclamation from a gentleman who is no stranger to superior gardening, Mr. Campbell of the Churchill Nurseries, Glasneven, who said, "If I had seen nothing else in England, and I have seen much, I should be well satisfied with my visit from Dublin." No more need be said on that side of the garden, and but little on the other boundary.

This is again a total change, being composed of rugged roots, and the cool green fronds of Ferns luxuriating under the dense foliage of timber trees. This cool retreat is made still cooler by a fountain, and the sense of rest is further suggested by a rustic grotto and inviting chairs. On the front next the lawn is an herbaceous border. Such in brief are these two lawns, their dispositions and surroundings, each of which enhances the beauty of the other, and which affords an example of decorative gardening on a limited scale which is certainly worthy of notice and emulation.

"But is there nothing else but a bit of flower gardening to see?" some may ask. Yes, there is a bit of Vine-growing and a bit of plant culture at Cleveland House, but these I will notice next week.—W.

THE first part of "The Dictionary of English Plant-names," edited by Mr. J. Britten, Botanical Department, British Museum, is printing. He will be obliged by information relative to local names.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

KITCHEN GARDEN.—September is upon us, and many things will have to be attended to in this department. For instance, it is the month for ripening and storing many of the crops, such as *Onions*, the general crop of which will now be ripening-off, and will do no more good in the ground; therefore pull them up, and while the weather is fine let them lay upon the ground even for a week or more, then gather them in, and on the first opportunity string them on to sticks about 2 feet in length, and hang them up in some dry cool shed; but not where damp and frost reaches them. They keep better in this way than any other I know. Those pricked-out or sown later may be left in the ground a little longer; but if wet weather comes upon them take care that these are used first, as late crops of this bulb do not keep well. Those sown last month to stand the winter should be kept very clean on the ground, and be thinned as soon as possible, and all vacancies in the rows filled up.

This is the month for the growth of the general crop of *Celery*; it makes more progress during this month than any other. Take care that the plants are well supplied with water, because if they were put out at the proper time they will have filled their allotted space with a multiplicity of roots, which must now have something in the shape of nourishment to keep them going apace. After the plants have reached a fair size, say about half their growth, and if water has at all times been liberally supplied, the earthing may commence. I seldom like to commence this work very soon, except in the case of the earliest, which must be earthed in order to have it properly blanched.

Take care to advance as much as possible the sowing of *Cabbages* which are intended for spring use. The Onion bed is a place for these to be planted, because the manure applied to the Onions is so far exhausted by that crop that the *Cabbages* do not grow too coarse and become too tender to stand the severity of winter. Transplant the *Cabbages* about 1 foot apart in the row and at least 2 feet between the rows. Every other one of these can be cut out about Christmas time, and the stalks pulled out, and the first fine day the ground is put in order about them, and they go on successfully.

Plant out all the Lettuces and Endive possible, a store of these is very valuable; and remember those that do come in for use will not be large, and therefore will not go so far as a good summer Lettuce, consequently more than as many more will be needed; and the ground should be the best the garden affords. Those from sowings made now will not be likely to come in for use, but it is necessary to have plenty of plants to put out thickly under walls and on warm borders; therefore if a sowing is not already made it should be done at once.

Leaks in trenches and on warm borders must during this month have plenty of liquid manure, for it is also the time when this plant makes wonderful growth. If the plants are making too much leaf according to the stem clip off some of the large and drooping leaves, this will help to increase the size of the stem.

The crop of Spinach advised to be sown two or three weeks ago is well up by this time, and should be succeeded by another crop of the same sort; this will be more for spring use, and the first one for winter. As this advances the ground should be kept clean while the weather is suitable.

Tomatoes will be late this year, and indeed at one time I thought the weather would prevent any crop coming at all; however, even now they are somewhat diseased similar to the Potato, and these have been picked off and the diseased leaves also. The ground about their roots ought to be stirred, and a mulching of rotten manure placed about them; afterwards a good watering, and to be repeated twice a-week. All growths to be stopped and all flowers picked, so as to prevent any more fruit setting and to encourage the growth of the fruit that is set. Even some of the bunches of fruit will need thinning; this occurs more with the Orangefield and the common red than the larger sorts; but if all sorts set properly there should be a little done to them all.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

THE Potato is the most important vegetable cultivated in our gardens, and any information that can be obtained likely to check the disease will be welcome to all. We stated two weeks ago that the haulm had been removed from a lot of Dal-mahoy, and the earth drawn up over the rows to fill-up the holes made by drawing out the haulm, and also to throw the rains off the Potatoes. The way the haulm was removed was this: a man placed both his feet close to the plant with the stalks between them, and with one pull the stalks were removed, leaving the tubers in their places. After three weeks the disease does not seem to have made any further progress. It may be as well to state that we have had but one night's rain since the haulm was removed, and the ground is very dry. Our belief is that removing the haulm when the crop is first attacked is a means of checking the disease. Others have been trying it, and the result if published would be very useful. The later sorts are slightly attacked by the disease, but if the present fine weather continues it is not likely to spread much. Have been making the ground ready for Onions and other crops mentioned in the "Doings" two weeks ago; we would rather that there were more moisture in the ground before sowing the seeds. Some rich manure has been dug-in, and before sowing the Onions the ground will be trodden-in quite firmly. Trimming hedgerows round the garden. If this work is done now some little growth will be made before the winter sets in—just enough to hide the marks of the shears. Ours is a Privet hedge, and has a very neat appearance. Sometimes Yew hedges are planted to enclose the kitchen garden, and when trimmed neatly they have a very good effect. The hedges may be of any height, but 6 feet ought to be the maximum. We continue to gather Pears and Apples as they ripen, and gather fallen fruit daily.

### CUCUMBER AND MELON HOUSES.

Our system of growing Cucumbers is rather different from that pursued by many gardeners. The usual way is to grow plants from seeds, and for a winter crop of fruit the first day in September is a good time to sow the seeds. As to the best sorts to sow, this will depend very much upon the tastes of the owner. Many gentlemen like to see the Cucumbers growing, and prefer long handsome specimens to large crops of small though useful fruits. On the other hand, the gardener who is required to send a Cucumber in to the house every day during the winter months, must grow the sorts that produce small fruits. We have seen a large number of different varieties during the last few years, and it is just possible that Rollisson's Telegraph has not yet been surpassed. We do not require large quantities of Cucumbers during winter, and Tender and True gives us an ample supply. Four plants are sufficient for us. We propagate either by layers or cuttings, as it is so difficult to obtain seed from this variety. One thing is of very great importance whether the plants are raised from seeds or cuttings, and that is to grow them on without any check to their growth, nor should the plants become drawn-up for want of sufficient air. Place the pots close to the glass from the earliest stages of their growth, and while the plants are in pots they must not become root-bound. Insect pests must also be destroyed as soon as they appear, trips and green fly by fumigating with tobacco smoke, and red spider by syringing with clear rain water. Much care is necessary when applying the water with the syringe so that the leaves are not lacerated.

Melons have been inferior in flavour this year, but the weather has been very favourable to the development of quality during the last month. Melons even more than Cucumber plants require careful attention from the first, as the leaves are even more easily injured, and it is not possible that good-flavoured fruit can be produced if the leaves are not kept in good health. Other matters on which there is much divergence of opinion, is

soil and watering. Sometimes much trouble is taken to obtain a certain sort of poor loam, not that of a fibry nature, but ordinary spit loam, and it is used without any manure being added. Good turfy loam, medium clay, with the addition of one barrow-load of rotted manure to every six, is the best material to plant them in, and 1 foot in depth of soil is quite sufficient. During such fine weather as we are now enjoying no artificial heat is necessary to ripen the fruit; later in the season artificial heat is necessary, and the ventilators should be open night and day. Then about watering. Many persons fancy that water should be withheld entirely in the later stages of the plant's growth, and they do not give large supplies at any time. It may not seem feasible to those who do not believe in giving good soakings of water, but it is a fact, that the plants damp-off at the neck sometimes because the roots have not had sufficient water, and what has been given was supplied in dribbles. If the soil has been well watered from the first, another good watering about a week before the first fruit ripens will be quite sufficient to ripen-off all the fruit. It is not the state of moisture at the roots upon which the flavour of the Melon depends, but upon the quantity of leaves that can be exposed to the sun, and the way in which the house is ventilated.

### ORCHARD HOUSE.

When the trees are grown in pots the trouble of watering during the hot days of midsummer is immense, to say nothing of drenching the trees overhead twice a-day with the garden engine, but when the fruit is ripe the labour involved in assisting it to that stage is forgotten. At present the trees have just enough water to keep the soil moist; indeed much of the quality of the fruit depends upon the state of the roots as regards moisture at this season. Nearly all the mid-season Peaches and Nectarines have been gathered. Desse Tardive and Exquisite, two very fine varieties, are just coming in. At one time we used to tie gauze or some sort of netting under the fruit to prevent it from falling to the ground, but when Peaches are allowed to hang until they drop off the flavour is impaired. The best way is to look over the trees once a-day and carefully pick off all fruit that parts readily. It ought to be placed in a flat-bottom basket at once on a layer of cotton wadding, and be placed in some cool cellar or fruit-room, without removing it from the basket. Pears ought also to be gathered before they are ready to drop off, especially such sorts as Williams's Bon Chrétien and Rivers's Summer Beurré d'Arenberg; the last-named variety will decay at the core as it hangs on the tree. The varieties that have been already gathered in the orchard house are Williams's Bon Chrétien, Summer Beurré d'Arenberg, Madame Treve, Beurré d'Amanlis, Beurré Hardy, and Souvenir du Congrès. All of the above are first-rate sorts for orchard-house culture. The ventilators are now left open all night. This treatment with plenty of sun heat has much improved the flavour.

### PLANT STOVE AND ORCHID HOUSES.

The principal work has been cleaning and re-arranging the plants in the houses after being painted. In order to reach all the crevices the fixed lights were taken off and painted before they were put on again. Very little is required now amongst the plants except to see that they have plenty of room, and that they are kept clean and as much exposed to the sun as possible without being injured. Marantas, Alocasias, and a few other plants will suffer from a too free exposure to the sun as yet, but none of the hardwooded species of stove plants should be shaded after September. Phalenopsis and Cyrtopodiums may yet be shaded, while Cattleyas, Lælias, &c., should be fully exposed to the sun after this. Poinsettia pulcherrima, which has been out of doors up till now, has been removed into the house. The best way to grow this useful decorative plant during the summer is in the open air. The plants remain sturdy and healthy, nor do the bottom leaves part so readily from the stem. After the first day of September they are placed in a house near the glass, and if necessary the night temperature is kept up artificially to 55°.

### FLOWER GARDEN.

The Gladiolus is now one of the most popular of autumn flowers, and is in considerable request for decorative and exhibition purposes. Many of the best-named varieties are of very delicate constitution, and degenerate under cultivation in England. It is a good plan to stir the ground amongst the plants with a Dutch hoe after the flowering is over, or if the ground has become a little sodden from watering it may be forked-up to the depth of 2 or 3 inches. This has been proved of much advantage in ripening the bulbs. In a large collection there are always a number of plants of which the stalks die off prematurely; the best way is to pull all such up and tie them in bundles to burn. Some of the best growers consider this a disease, but it is probably nothing but degeneration, as no trace of disease is apparent on the corms. Asters have flowered very finely this season. This is also becoming a very popular autumn-flowering plant. The improvement in both sections has been great within the last six years; not only has better form and quality been produced in the flowers, but the colours, especially in the

French Asters, are much more brilliant. The soil ought to be deeply trenched in the winter and enriched with manure.

We have begun to propagate the bedding plants, taking Zonal Pelargoniums first. The cuttings are merely planted in boxes and placed out of doors until they are rooted. Centaureas we plant singly in small pots, or, if the cuttings are small, two are placed in a pot; they are then plunged in cocoa-nut fibre in a cool frame, and slightly shaded until the cuttings are rooted. They take longer to do this than most other plants. Verbenas, Heliotropes, Ageratums, &c., are propagated about the end of September, and the shrubby Calceolarias about the third week in October. The flower beds are apt to assume a straggling untidy appearance at this season, but they must be attended to. All weeds and decaying flowers are removed, and the lawn kept closely mown. Auriculas also require careful attention. Many of the plants throw up flower-trusses, but these ought to be removed before the flowers open, as allowing them to remain tends to exhaust the plants for spring flowering; decaying leaves are also removed at once.—J. DOUGLAS.

### TO CORRESPONDENTS.

\*. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

✶ We request that no perishable fruits be sent at present, as our authority for naming fruits is absent for a time.

BOOKS (Sakib).—Our "Garden Manual" gives the information. Post free if you enclose twenty postage stamps with your address.

FRUITING FRUITS (J. W.).—Usually in places all alike. Grapes on an inclined board as shown (No. 788, page 288), in this Journal. Quantities are specified, or ought to be, in the list of prices offered.

DIAPYCNUS HORREARIANUS (R. C. O.).—We think it likely that the Horrearianus coming up through newly-sown grass may be destroyed as are Plantains, Dock, and other deep-rooted weeds, by dropping upon the crowns of the plant all of vitriol. A single drop in the heart of such weeds as Dandelion or Plantain is sufficient to cause death, but Dock and Horrearianus have not hollow crowns as these have, therefore the crowns should be cut out with a knife, and the root left here a hollow in it, and into the cavity so formed the vitriol should be dropped. An old blanching-bottle with a wire round it to carry it by answers for the vitriol, and a stick with notches at the end for an inch or two the better to hold the vitriol, is the only instrument required. Be careful, however, in its use, not trusting it to other than a person in whom you have confidence to put it to its right use.

SUNFLOWER CULTURE (H. W.).—We presume you wish to cultivate it for its seeds, and for those to perfect the seed should be sown early, the beginning of April being most desirable, and the crop will be fit to harvest at the close of August or early in September. Drill 60 inches apart should be drawn, and the seeds sown evenly, or drilled in about an inch deep. The plants should be kept clean, and thinned to 18 inches distance apart.

YUCCA GLORIOSA (J. El Akbar).—This is blooming everywhere this year, and is the consequence of a hot season it has recently enjoyed.

EVERGREEN SHRUBS IN BANKERS' RUBBLE (Veritas).—No shrub that we know would thrive in "bankers' rubble," which we presume is some kind of stone; but if you have good soil on either side, or upon both, you may plant Ivy, the common or the Irish would grow well, and trained over the rubble would give a fine green covering. Cotoneaster microphylla might do well were you to provide some soil where you plant so as to give the plant a start, and the growth spreading over the surface would have an effective appearance.

GRAPES SHANKED (T. Upton).—"The berries on some of the bunches rather shrivelled, smaller than the others, of a muddy-red colour, and in favour sour," are shanked, which is occasioned by the roots not supplying sap to meet the transpiration taking place by the leaves. To prevent this there is no better means known than to have an increased extent of foliage, not necessarily great, but by attending well to stopping from the first, keep up a steady increase of foliage and active root action, and with the roots in an active state, and the stores of sap in the leaves, the greatest freedom from shanking is found. The allowing of the laterals to extend considerably and then removing them all at once by a severe cutting-back diminishes the rooting power, and the stores of sap are inadequate to the demands of an excessive evaporation consequent on a hot and dry day or period succeeding one of dull weather. Slow and steady progress is what is needed to maintain the balance between the head and roots, and where this is provided the Grapes do not shank.

STATING THE WHEREABOUTS (An Old Subscriber).—We endeavour to do what you rightly suggest is useful. Correspondents should always state the place where the plants they cultivate is situated.

WATERCRESS CULTURE (W. A. W.).—Full instructions for making Watercress beds are given in vol. XIV, new series, page 276.

IMPROVING THE COLOUR OF ROSES (Idem).—No manure that we know will cause the plants to have the blooms intensified in colour, but strong soil and cool manures usually afford blooms higher in colour than a light soil and stimulating manures. Exhibited blooms are shaded and kept from rains, which preserves their colour. The climate of Devon is warm, and warmth promotes the vigour of Rose trees.

PLANTING VINES (Amateur).—The best time to plant Vines in an outside border is, the Vines being kept in a cool house up to planting, when they are commencing growth; or if there is danger of rubbing off the eyes through introducing them through the aperture, you may plant them in March when the eyes are commencing swelling, and spreading out the roots, laying them out evenly over the surface of the border, and covering with soil 4 to 6 inches deep, watering with water at 70°. Other suitable Vines besides Black Hamburghs and Foster's Seedling, are Black Prince, Buckland's Sweetwater, Duke of Devonshire, Muscat Trovers, Veitch's Black Muscat.

OWENS RUNNING TO SEED (West Coast of Ireland).—We cannot account for their running to seed other than that they have attained to the seedling state from a check occasioned by a prevalence for a time after they had begun to form bulbs, of dry weather, being stationary for a time, and then from wet weather succeeding they formed thick necks and run to seed. In no other way can we account for it, unless, indeed, the seed was old, the early sowing and season causing them to attain early development.

PROPAGATING CRASSULAS (Idem).—This is as good time as any, the cuttings to be the tops of the young shoots 2 or 3 inches long, and those which have not flowered, and insert in very sandy soil, and water very sparingly, placing in a frame or in any house where there is a gentle heat, guarding against damp, and the cuttings will soon be rooted, when they may be potted off singly. Seeds should be sown in spring in gentle heat.

BOWING CYCLAMEN PERSICUM (Idem).—Sow it early in March in a hotbed, and grow on in moist heat, and the plants will flower early in the spring following. What shrub is it you wish to raise from cuttings? To name all would be to give instructions for those you may not have, nor care for.

SMALL ROSE (E. G. D.).—No culture will increase the size of the flowers. It is a small-flowered variety. You may promote the vigour of the bush and prevent its leaves becoming spotted and brown by watering the roots liberally, and keeping the surface of the soil over them mulched with half-decayed stable manure.

FLIES (?) IN GARDEN (T. G.).—We should have been glad to have seen specimens of the small insects first mistaken for Podura, and then considered as small flies. If the latter, they had probably been bred in sawdust or shavings, or, perhaps, in places where dogs or cats rest.—I. O. W.

NAMES OF PLANTS (C. P. Smith).—We cannot name plants from their leaves only.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### CHAPTER 3.—AYLESBURY.

To the land of ducklings and the country of butter and cream we betook ourselves to see all Mr. Fowler's live stock on the Prebendal Farms. Everyone knows Mr. Fowler. We look back at volumes of our Journal of very many years ago, and we find the name of J. K. Fowler at the top of many prize lists. In fact we should almost think he was the oldest fancier extant that has gone on, spring after spring hatching and rearing, year after year exhibiting and scattering worthy representatives of his breeds over Great Britain and America. We are glad, too, that when the time comes—which we hope will be far distant—for Mr. Fowler to rest from poultry labours, that he will have in his son a successor as able, as energetic, as courteous almost as himself. We had truly a pleasant little visit at Willow Bank, and could tell for a long time of that pretty winding garden and the smooth Badminton ground and the flowers, and last but not least of the glorious old oaken furniture in which Mr. Fowler so delights; but we have not the time or the space. "Les Basses Cours" we must here speak of, and to them, then, let us go. Very near the town are the Prebendal Farms, only a little walk from the station on the high road towards Oxford. We entered the gates that lead to the farm buildings and poultry runs, and the first thing we saw was Mr. Baldwin's house. Everyone who frequents the poultry shows knows Baldwin; with his cheery good-humoured face he always looks as if nothing could upset him, and a very excellent Duck and poultry man we should think he is to Mr. Fowler. In front of his cottage was a little enclosed lawn open to all the rays of the spring sun, and round it we saw a long range of rough shedding where the coops are placed containing the early broods of the year. This was the nursery, and a very admirable one it looked to be; and being so handy to the house the chickens could have every possible attention.

Round the farmyard we found covered-in pens littered down with straw, and in them were troops of Ducks, Rouens and Aylesburies, all perfect monsters. We suppose Baldwin picks out the best and takes them to other quarters to prepare for exhibition, though as far as that goes every bird in those pens seemed worthy of a prize. We then came to a pool and streams of running water. Here we saw flocks of Ducks—Rouens, Aylesburies, East Indian, and last, not least, those excellent Cayugas. It was really a wonderful sight to see that mass of Ducks, the Black, and the Brown, and the White, all in one string taking to the water. We realised then for the first time the size of the Aylesbury Duck establishments. Mr. Fowler, however, we believe, keeps many other lots out at cottages and farms; so the pick he has for exhibition purposes must indeed be considerable.

From the brook we came into a large meadow where are some of the wired-in runs, and they were something like runs. None of those little four-yard-square enclosures, but big and bonny grass places, like miniature paddocks, with moveable houses in them. When we saw these we did not wonder so much that so many prize cards come to Aylesbury. We found them full of inmates, about half a dozen in each, all in the most perfect health and living in the lap of luxury. Most of them contained prize birds, for Mr. Fowler is not one of those who, when he has a good bird, goes on showing it till it is done up; but he rings the changes all round, and everything comes in for its turn in the exhibition pen. We saw in these fine grass runs



Buff Cochins, White Cochins, Partridge Cochins, White Leghorns, Dorkings, Crêves, Houdans, and specimens of most breeds. The Crêves and Cochins struck us most, they looked so grand on those green runs. The Leghorns, too, seemed graceful and aristocratic, and of snowy whiteness. We can but congratulate Mr. R. R. Fowler on the perfection to which he seems breeding this variety. We passed on from these enclosed yards to another meadow, and there were young stock of all breeds of all ages, of all colours, enjoying unrestricted freedom on the richest of Aylesbury meadow land. Those birds must have a joyous life—good food, good water, and free liberty. When taken up for the exhibition basket, or to go to a fresh home wherever it may be, we fancy they must have a different life, and one not by any means so enjoyable as at Aylesbury.

Next we came to the rick-yards. More Ducks, more Geese, more poultry, and the Turkeys. Bronze American, Cambridge gobbling under the corn ricks—scratching in that paradise of poultry yards, growing, fattening, and thriving on the best of foods and in the happiest manner. We passed on again to another field where were moveable houses, and here we found pullets of all breeds. There were Cochins and French by dozens, each one looking better in condition than the last, and in sounder feather. Among such a troop we should have had no idea how to pick out the best half dozen; and then, finally, we went to the enclosed, roofed-in, straw-littered pens, where were the prize and exhibition Ducks and Geese for which Mr. Fowler has made his name so famous. We longed to know the secrets of blanching those Aylesbury's bills, of putting the huge weights on those Embden Geese, but we asked no questions. We revelled in their grandeur, and went away satisfied, and we believe we may say any others who go to Aylesbury may, with Mr. Fowler's permission, enjoy the pleasures that we did, and we guarantee they will not be disappointed. When we had seen all we have spoken of, and much more besides, we had not seen all, for Mr. Fowler keeps other birds in other homesteads; but we had no time to go to them, and, in fact, we had seen enough, for we had seen the greater part, and were able to realise the immense scale on which the Pribendal poultry farms were worked. We cannot help adding here that those who go to Mr. Fowler to replenish their stock, or obtain fresh blood, do not receive specimens weakened by overawing, or whose parents have been made sickly from the same cause, for their owner does not believe in that practice, consequently the cockerels and pullets coming from these yards are strong, and lusty, and fine. Before we left we were shown the plate, and a goodly lot there was, for Mr. Fowler has won champion silver trophies with his Shorthorns as well as with his Ducks and poultry; but we could but note the great difference between the poultry plate of some years back and that of the present day, for Mr. Fowler showed us massive salvers, and dishes, and jugs, whereas now so long as it is a cup it does not seem to matter how paltry the article may be. We saw the other day a cup sent out the size of a wine-glass and as slender as tissue paper, two fingers could have squeezed into any shape, and yet this was a £3 8s. prize. If we are not to compete in these days for trophies like those of olden times, let us have instead good cash prizes, and a champion cup or two for the best pens in the exhibition, or at least be allowed to choose other articles equivalent in price but more useful in themselves than the cheap deceptive cups of the present day. This is digression from Aylesbury, but the ideas flashed across us when we saw Mr. Fowler's plate won in bygone years. We have not forgotten that there is another rising poultry establishment at Aylesbury which bids fair to do great things, but Mr. Fowler had so much to show us that we could not get to Mrs. Acton Tindal's at this visit, and must, all well, make another chapter of that in weeks to come. When we had done Mr. Fowler's poultry establishment, and seen all the waterfowl, we had a hasty peep at the cattle and the steam ploughs and such like, and then it was time to go. We only had to walk down the gardens to find ourselves on the platform of the station, and so with a glorious blush rose bud as a souvenir, picked from that charming old-fashioned garden, and with the pleasantest recollections of the Willow Bank hospitality, we, for the time, bade adieu to Aylesbury.—W.

### CATALOGUES.

I READ with pleasure your contributor "W." notes on catalogues at shows. Exhibitors may well resent what seems such indifference to their just claims, and the more when the remedy is so easy. If secretaries would keep on hand a stock of stamped wrappers, and as they transcribe the entries from the usual form into their books, also write the exhibitor's name and address on one of them, then file them, and when the catalogues are ready hand a sufficient number of them along with the ready-addressed wrappers to a boy, plenty of whom are usually to be found at hand on such occasions, telling him at the same time to post them when finished, the transaction is done.

But with regard to the A and B entries I cannot agree with "W." Such classing does not show that entries have been

carelessly kept, but it does show that they have been taken after date. This is much more generally the fault of exhibitors than secretaries, and these last have good cause of complaint. As an example I may mention that at our local show, of which I am secretary, the entries at the date of closing amounted to 170; two days after I had received nearly 880 more. The amount of extra labour thus entailed by the whole work having to be done in such a short space of time any secretary has a right to complain of, as it is impossible it can make any difference to an exhibitor entering three or four days sooner. But secretaries are at the mercy of exhibitors, as it is easy to say, "Stick to your date," but then what sort of a show have you? The fact is, if the secretary has the matter at heart he must take them, and when this is the case it is all the harder that his love of the fancy should be the loophole by which his brother fanciers take advantage of him.—J. E. BRUNNEN, *Broughton Ferry*.

### MORE NOTES ON THE BIRMINGHAM SUMMER SHOW.

IN the beautiful grounds of Aston Park we found the Summer Show this year. Such a glorious Eden after last time. We look back with terror at St. James's Hall, bristling with scaffolding poles, smelling of paint, and varnish, and glue, as it did last September when the Summer Show was there. We must congratulate Mr. Watts on his trying place this season, and on the "quality" he gathered together. He and his attendants were as civil and courteous as ever; just as last time their show was conspicuous for the kindness and courtesy all exhibitors received. There was, however, one drawback, and that a serious one—we could not find out when we were there on the first day who won the cups and extras, and so this hour we are perfectly in the dark as to who are the happy owners of the "silver-plated tea services." It was a mistake not adding these awards in the list of prizes.

We found the *Dorkings* splendid classes, and the quality much superior to last year. The winning cockerels were fine, and deserved their places. Messrs. Burnell and Beachy will, we fancy, be strong exhibitors this year. The winning Coloured pullet was a well-matured bird. The second we did not care for; she was rather poor in colour, and had not the best of toes. The third (Darby) was much superior, being of splendid colour, and when more matured will make a rattling bird. 19 (Beachy) a splendid pullet, but a shade faulty in feet. The Silver-Greys and Whites were good. Mr. Stratford's third cockerel we thought especially promising. We were glad to see the Silver-Greys, too, so looking-up and of such promise.

*Cochins* were beautiful, and with the exception of the Blacks made large classes. The first Buff cockerel was a beauty, sound in colour and very promising in shape. We believe he was bred at Stone Park, and is one of Mr. Wragg's young wonders. The second was a beauty, good all round. In pullets the winners were all good, but, with care, we back the third (Darby) to beat the lot. We never remember greater promise in a pullet of that age, and we believe in this opinion Mr. Fenton, one of the best Cochins judges in the world, backs us up. The Blacks were not superior, except the first-prize pens, and they were the second-prize pen at Preston we believe; if so, one must there have had black legs and one yellow. Partridge were good classes. It must have been a close shave between the first and second cockerels. The Whites, too, were a fine lot, especially the pullets, but they did not come up to the winning Whites of last year.

Dark *Brabmas* were disappointing. We looked in vain for the symmetrical giants of last season. Wherever is Mr. Lingwood? or is rumour right when we hear that many of the winning chickens so far have come from Creeting? The *Lights* were grand—bird after bird worthy of a prize. It is truly marvellous to see to what a pitch of excellence this handsome breed has been brought. Mr. Dean was evidently up right early this year, and secured the early worms. All the winning cockerels were good and well placed. We dare not individualise the pullets, they were all so good; perhaps we liked three or four as well as the winner, but we would not have judged them for anything, for so many were so even.

*Spaniels* were very fine. We refused to see this aristocratic breed mustering so well, in quality especially. Old birds won the first prizes, and hence the cup. 298 (Belden) seemed worthy of a place, though we should not have had the heart to leave 307 (Allcock) out in the cold.

The *Game* were small classes, and did not come up to last year's show at St. James's Hall. Most of the birds were backward, the cockerels especially, but there is plenty of time for them yet before the two Palaces hold their "at homes."

*Hamburghs* were again badly represented. We could not understand it; only about twenty pens for nearly as many pounds' worth of prizes. We confess we do not understand the *Hamburgh* exhibitors, for there would have been as much competition at a village show in Lancashire for 20s. as there was here for close on £20.

*Polands* were good; but, Mr. Watts, "where, and oh where, is the other class gone"—those poor White-crested creatures? But their owners deserve it.

*Houdans* two capital classes. Did we see some feathers on the winning cockerel's legs, or was it fancy? The second a beauty, and the pullets all good and well placed. 896 (Morris) a splendid fellow.

*Créves* were small classes, and what there was we did not think much of.

The Variety classes were small, but the winning birds good. Malays were first in both classes, and then White and Brown Leghorns seemed to have tossed for the other prizes. We are glad Mr. Kitchen has at last landed his speciality.

*Bantams* were good; in fact, very good. The Piles were beautiful. The Sebrights, too, mustered quite smartly. Mr. Leno won the cruet stand, and we hope it was a good one. A drop of oil is often useful to all of us, but perhaps there is as little used at Dunstable as there is anywhere. Black Bantams were splendid. Mr. Beldon's cockerel was a regular little beauty. In the next class Pekins and White-boots divided the booty.

*Ducks* were good; but Mr. Sainsbury must not be left alone in his glory any more; still we are certain we shall never see these classes well filled till the size is less thought of than colour.

The adult birds were a good lot, but many left a great many feathers behind in Aston Park, so rapidly were many falling into moult. Mr. Darby's winning Coloured Dorkings were very grand, his winning hen a "Martini" all over. The Cochins and other adults were for the most part birds which we have commented on for months back, and the names of their owners almost can tell us the names of the individual birds. Silkies had a class; the first went to beautiful chickens, and second to a good pen of Mr. Woodgate's, but they had become dirty in their pen; third were fair birds, but we liked another pen or two quite as well. Black Hamburgs were honoured with two adult classes, while the other Hamburgs had not even one. We could not understand it, and the honour seemed to have been too great for the birds themselves, as only eight pens appeared to try for six prizes value £5 10s. We are more and more amazed at the Hamburg exhibitors.

### LEICESTER EXHIBITION OF POULTRY, &c.

This year's Show, August 24th and 25th, was carried out with the same amount of care and personal supervision that has always been noted at the previous meetings. The fact is, nothing could be wished for better than the arrangements within the tent, which gave plenty of space for visitors, with the most ample accommodation for a fit display of the birds exhibited, and as the show days were very fine and summer-like the attendance of visitors proved most satisfactory.

The Grey Dorkings were mostly in very indifferent feather, and though the prize birds were excellent, the less we say of the remainder the better. *Spanish*, though deep in moult were very good, although it appears to us not good policy to exhibit valuable stock whilst under such heavy change of plumage, as it retards the moult considerably. The whole of the *Cochins*, as usual at the Leicester shows, were unquestionably good, a grand pen of Mr. Tomlinson's Bufts coming well to the fore in adults, and Mr. Charles Sedgwick of Keighley returned the compliment under severe competition in the Buft chicken class. In White Cochins Mr. Tomlinson managed to secure both prizes with a couple of admirable pens in the adult class, and was also first for White chickens. Partridge Cochins took first in the Any other variety Cochins class, and unusually good Blacks had the second place; and again, in the chicken class the colours stood in the same order. The Light *Brahmas* were beyond question preferable to the Dark-feathered class, and some of the youngsters of this breed forcibly reminded us of the most palmy days of the late Mrs. Williamson, who enjoyed a world-wide reputation for her strain of Light *Brahmas*. Good *Game* fowls, but mostly moulting, was the order of the day; but in the Variety class a pen of Black Red pullets, and another of Brown Reds, were shown in the most unexceptionable feather. *Hamburgs* were few and praiseworthy, and we should do wrongly by omitting favourable mention of a pen of *White Bantams*, both good and very small. *Geese*, *Ducks*, and *Turkeys* were grand classes, and though the *Pigeon* classes were not large, the quality of most of them was equal to the best of shows. The *Rabbits* were about the best collection yet seen at Leicester.

**DORKINGS**.—1, J. Ward, Bardon Hill, Ashby-de-la-Zouch. 2, W. H. Crabtree, Levenshulme. 3, S. W. Hallam, Whitwick, Leicester; Miss M. Murray, Thilstone, Derby. *Chickens*.—1, Miss M. Murray. 2, W. H. Crews, Etwall, Derby.

**SPANISH**.—1, S. W. Hallam. 2, J. Gunn, Coalville, Leicester. 3, M. Brown, Ab-Ketley.

**COCHINS**.—*Cinnamon and Buff*.—1, H. Tomlinson, Birmingham. 2, T. Rogers, Crouch End, London. *Chickens*.—1, C. Sidgwick, Keighley. 2, W. H. Crews, 6, H. Tomlinson.

**COCHINS**.—*White*.—1, W. Whitworth, jun., Longsight, Manchester. 2, H. Tomlinson. *Chickens*.—1, H. Tomlinson. 2, W. Whitworth, jun.

**COCHINS**.—*Any other variety*.—1, J. Gunn, Coalville, Leicester. 2, W. Whitworth, jun. 3, T. Rogers. *Chickens*.—1, C. Sidgwick. 2, W. Whitworth, jun.

**BANTAMS**.—1, W. H. Crabtree. 2, J. Gunn. *Chickens*.—1, W. J. Ford,

Humberstone. 2, J. T. Hinks, Humberstone, Leicester. 3, Rev. R. L. Story, Derby; Dr. J. Holmes, Whiteootes, Chesterfield; W. H. Crabtree. 4, H. Draycott, Leicester.

**GAME**.—1, S. W. Hallam, Whitwick, Leicester. 2, E. Winwood, Worcester. 3, 1 and 2, W. T. Everard, Ashby-de-la-Zouch. *Chickens*.—1 and 2, T. B. Lowe, Leicester. 3, A. C. Barclay, Leicester; W. T. Everard.

**PARTRIDGE**.—*Golden or Silver-spangled*.—1, S. W. Hallam. 2, J. Ward. 3, W. H. Crabtree. 4, J. M. Mayo, Gloucester. 5, W. Griffin, Leicester. *Clean-legged, any other variety*.—1, H. Draycott. 2, Withheld.

**SELLING CLASS**.—*Cock or Cockerel*.—1, T. Rogers (Buff Cockerel). 2, J. E. Pilgrim, Hinkley (Houdan). 3, J. H. Watkins; J. T. Hinks; M. Brown. 4, H. H. Watkins. 5, H. Yardley, Birmingham (Partridge Cockerel). 6, A. C. Barclay (Brown Red Game). 7, W. S. Black, Melton Mowbray. 8, H. Draycott. 9, M. Foxwell, Hinkley; M. Brown. 10, T. Sheppard, Humberstone, Leicester.

**DUCKS**.—*Aylesbury*.—1, Mrs. Deacon, Oundle. 2, T. Bear, Aylesbury. 3, W. H. Crews; W. Snell, Barrowden, Stamford; H. E. Emberlin, Oadby, Leicester. 4, W. Whitworth, jun. 5, R. & H. Gill, Holwell, Melton Mowbray; W. T. Everard. 6, *Any other variety*.—1, H. Yardley (Caroline). 2, T. Rogers. 3, W. Wykes, Wolvey, Hinkley. 4, W. H. Johnson, Braunston, Leicester (3).

**GESE**.—1, W. Snell, Barrowden, Stamford. 2, W. H. Crews.

### PIGEONS.

**CARRIERS**.—1, H. Yardley. 2, W. Nottage, Northampton. 3, C. Bream, jun., Leicester.

**POUTERS**.—1, H. Pratt, Hampton-in-Arden, Birmingham. 2, W. Nottage. 3, H. Yardley.

**FANTAILS**.—1, H. Yardley. 2, J. F. Loversidge, Newark. 3, J. Walker, H. E. Emberlin.

**ANY OTHER VARIETY**.—1, H. Yardley. 2, H. Jacob, Humberstone, Leicester. 3, A. H. Wayne, Humberstone, Leicester. 4, H. Jacob. 5, H. T. Hinks, Humberstone, Leicester.

**ANY OTHER VARIETY**.—1, H. Yardley (New variety). 2, H. Draycott (Red Swallows). 3, extra and 4, J. H. Inckley, Mountsorrel (Fire Pigeons and Yellow Fairies). 5, H. Yardley (Black Barbs); W. Gamble, Thorpe Satchville, Melton Mowbray (Black Trumpeters). 6, J. H. Inckley (Frisillae); C. Bream, jun., Leicester (Red Mottled Tumblers); W. Nottage (Blue Foremen). 7, H. Yardley (Red Barbs). 8, R. & H. Gill; W. Matlock, Smeaton, Kibworth, Leicester.

### RABBITS.

**LOP-EARED**.—1, Mrs. H. Pickworth, Moulton Marsh, Spalding. 2, T. B. Barrow, Leicester. 3, W. Green, Normanton-le-Heath.

**STANDARD**.—1, H. Yardley. 2, H. Jacob, Humberstone, Leicester. 3, J. H. Inckley, Hinkley (Grey Patagonian); G. Crossley, Leicester (Himalayas); J. E. Pilgrim, Hinkley (Grey Patagonian); G. Crossley, Leicester (Himalayas); J. E. Pilgrim, Hinkley (Hare Rabbit); Mrs. H. Pickworth, Moulton Marsh, Spalding (Grey Dutch).

**JUDGES**.—Mr. Edward Hewitt, Sparkbrook, Birmingham.

### PENNISTONE SHOW OF POULTRY, &c.

The twenty-second annual Show was held at Pennistone on the 26th of August. There were forty classes for poultry, Pigeons, and Rabbits, with 233 entries. Turner's pens were used, the day very fine, and the number of visitors very great. Poultry were divided into old and young classes, the quality in many being only moderate, while in others it was very good indeed. In the large varieties this remark applying most particularly to Cochins in both classes, the first in Buft chickens an especially grand pair.

*Brahmas* were only moderate, but the *Hamburgs* were pretty good throughout, the old Gold-spangled and Pencil in the first-price pens being two of the champion pens of the season; the Silver-pencil chickens also a most noteworthy pen. The first in old Red *Game* were very good and in moderate feather, and Messrs. Mason's Duckwings most perfect in colour; the first in chickens of this variety uncommonly good. As may be seen from the names of the winners the Piles were very good and well placed. In both old and young birds the first in both classes were full of style. In old *Game Bantams* there were but few good pens; the winners were Black Reds. In the Variety class Blacks were first and Gold-laced second, capital Silver Sebrights being highly commended. *Ducks* were very first rate in every section, the Variety class being particularly interesting.

*Pigeons* but one class, and that for the best three pairs, the first going to Carriers, Pouters, and Archangels, and second to Carriers, Pouters, and Trumpeters.

*Rabbits* were poor, except the Himalayan shown by Mr. Hallas.

**DORKINGS**.—1, J. Walker, Rochdale. 2, W. Harvey, Sheffield. *Chickens*.—1, J. Walker. 2, Burch & Boulter, Sheffield. 3, H. Digby, Acres Lindley, Burnfield.

**SPANISH**.—Black. 1, Burch & Boulter. 2, W. Harvey. *Chickens*.—1, Burch and Boulter. 2, H. Wilkinson, Kirby, Leeds.

**COCHIN-CHINA**.—1, C. Sidgwick, Keighley. 2, J. North, Fartown, Huddersfield. *Chickens*.—1, C. Sidgwick. 2, C. Carr, Wilsden, Bingley. 3, J. Denton, Pitamoor, Sheffield.

**BANTAMS**.—1, W. Harvey. 2, Moore & Cartwright, Hollowgate, Holmfirth. 3, North. *Chickens*.—1, J. Healey, Hopworth. 2, H. Digby. 3, W. McMillon, Glossop; E. Digby, W. Harvey.

**HOUDANS**.—1, G. W. Hibbert, Godley. *Chickens*.—1 and 2, G. W. Hibbert.

**PARTRIDGE**.—*Golden*.—1, T. Dean, Keighley. 2, Moore & Cartwright. 3, Broadhead & Booth, Holmfirth. *Chickens*.—1, S. Arnold, Huddersfield. 2, Broadhead & Booth. 3, Moore & Cartwright; Burch & Boulter; W. Bentley, Bird Edding, Holmfirth.

**PARTRIDGE**.—*Any other variety*.—1, W. McMillon. 2, Broadhead & Booth. 3, Holmfirth. *Chickens*.—1, W. McMillon. 2, Broadhead & Booth. 3, Moore & Cartwright.

**HAMBURG**.—*Golden-pencilled*.—1, W. Driver, Keighley. 2, J. A. Brook, Holmfirth. 3, H. Digby. *Chickens*.—1, W. Bentley. 2, W. Driver.

**HAMBURG**.—*Silver-pencilled*.—*Chickens*.—1, H. Smith, Keighley. 2, H. Digby.

**GAME**.—*Black-breasted and other Reds*.—1, A. S. Sugden, Swinley, Cleckheaton. 2, C. Travis, Thurgoland, 3, J. Denton. *Chickens*.—1 and 2, B. Burton, Thurgoland Bank. 3, T. Johnson, Ecclefield.

**GAME**.—*Duckwings and other Greys and Blues*.—1, H. C. & W. J. Mason, Birstal, Leeds. 2, W. Marsh, Nook. *Chickens*.—1, B. Burton. 2, T. Johnson, Ecclefield. 3, B. Burton. 4, T. Johnson.

**GAME**.—*Whites and Piles*.—1, H. C. & W. J. Mason. 2, R. Walker, Gomersal, Leeds. 3, H. C. & W. J. Mason; Moore & Cartwright; R. Walker. *Chickens*.—1 and 2, R. Walker. 3, H. C. & W. J. Mason.

**ANY OTHER VARIETY.**—1, G. W. Hilbert, Godley, Manchester. 2, W. Bentley, A. & W. H. Silvester, Shadfield. 3, G. W. Hilbert; T. Deas, Kighley; A. and W. H. Silvester. **CHICKENS.**—1, S. Arnold, Raddesfield (Black Hamburg); 2, G. W. Hilbert; 3, C. Stigwick. **AS.** G. W. Hilbert; W. Wood, Wakefield; 4, R. Norton, Royland Common (Blue Seaside); 5, W. Bentley, A. & W. H. Silvester. **J. Thornley, L. Anglands, Godley.** 2, C. H. Digby (B). **BANTAMS.**—Game—1 and 2, A. & S. Sugden, Swinley, Clackhoughton. 3, J. A. Brock, Holmforth. *Any other variety.*—1, Sarah & Boulton. 2, J. Simpson, Worsley. 3, A. & W. H. Silvester; J. North. **POULTRY.**—1, J. Walker. 2, J. Pearson, Snowden Hill. **COCHINS.**—1, G. Jackson, Inghamworth. 2, T. Crawshaw, Hunschoff. 3, J. Brooks. **DOCKINGS.**—White *Spanglers*.—1, J. Walker. 2, J. Denton. 3, J. Denton; J. North. 4, C. H. Digby. *Spanglers*.—1, J. Walker. 2, G. H. Hirst, Northam Mills. *Any other variety.*—1 and 2, A. & W. H. Silvester. 3, J. Walker. **SPANGLED.**—White *Spanglers*.—1, T. J. Crockett, Doncaster. 2, H. Digby. **FIGURES.**—1 and 2, H. Harvey. 3, J. H. Sykes, Raddesfield. **HAMPSHIRE.**—*Long-necked.*—1, H. Worsley, Rotherham. 2, J. White, Highgate, Derby. *Any other variety.*—1, J. H. Halla, Huddersfield. 2, H. Digby. 3, J. H. Halla. 4, J. H. Halla, Huddersfield. **JURORS.**—Mr. W. Cannon, Adolphus Works, Bradford; Mr. J. Dixon, North Park, Bradford.

### SKIPTON SHOW OF POULTRY, &c.

The Craven Agricultural Meeting took place on the 27th of August, when the day was such as the Society has not enjoyed for many years. The pens used for poultry are substantial wooden ones, which are sadly too small for the large varieties, the greatest disadvantage, however, being that open both back and front, causing a strong draught, by which many young birds catch cold. The classes were divided into old and young, and in the young division the entries were good.

**Dorkings** headed the list with one pen. *Spanish* four, in which we would have put the second first, and Mr. Thresh (highly commended) second, though the first-prize pen had the best hen in the class the cock was quite down. In *Red Game* Brown Reds won, but they were mealy out of feather; and in the Variety first were Piles and second Duckwings. Of *Cochins* two pens, and both Buffs. *Gold-pencils* good for the time of year, and *Silver-pencils* in the finest order. In *Silver-spangles* the cup was awarded; but the hen having a broken tail, and the hen not so good as the second, these might have been reversed. *Gold-spangles* a grand lot, as good in fact as we have ever seen together, and well placed. *Black Hamburgs*—first good and second moderate. *Polands*—first *Silver* and second *Gold*, and the cup awarded to the first-named pen. *Game Bantams* were out of feather; the winners *Black Reds*. *Bantams* of Any other colour being all *Black*, and a good class. In the Variety class *Brahmas* won, a splendid pen of *La Fitch* highly commended.

In young poultry the *Dorkings* were good, and *Spanish* even better, but here we would have placed Mr. Powell's highly commended pen first, and the first-prize pen second. In *Red Game* were some promising chickens but not forward, and the pens being small they did not show well. In the Variety class first and cup for *Game* were *Piles*, and second also *Piles*, not quite as old as the first. In *Cochins* first were *Partridge* and second *Buffs*, both good pens. The first-prize *Golden pencil* pullet was a gem, and will no doubt be heard of again. *Silver-pencilled* very good, the *Silver-spangles* being also a moderate lot. *Black Hamburgs* not forward, but full of colour and neat, as *Hamburgs* should be. In *Polands* the winners *Golden*. *Game Bantams* were a good lot; the first *Piles* were very gamey-looking, and hard pressed by the second-prize *Reds*. *Black Bantams* were moderate in quality, and in the Variety class first were *Dark* and second *Light Brahmas*, a very good pen of *Red Malays* highly commended. *Geese* only one pen, and *Aylesbury Ducks* two, these very good, although the *Rouens* were even better.

In *Pigeons* the *Carriers* were well placed in both cocks and hens, as also the *Pouter* cocks; but in hens the second-prize *White* had a lame wing, Mr. Hornor's *Red* being a superior bird. *Almonds* were not well placed, the second being best in all respects, the first too light, and hen had a bad eye, and we would have placed pen 544 second; and in *Owls* pen 552 were by far the best in the class (Harrison), while the first were fairly entitled to second, though showing a touch of *Foreign*. *Barbs*—first good and rightly placed, but the second should have gone to pen 555 (Yardley), *Yellows*; the second-prize hen being almost dead could not carry her wings. *Jacobins* very good, and well placed; the first *Reds* very good in hood and chain. *Mottle Tumblers*—first *Yellow Short-faces*, and second *Red Long-faces*. *Beldpates* were first *Black Long-faces*, and second *Blue Short*, and well placed also. *Fantails* a good class, but *Dragons* poor, except the first *Blues*, which were young birds. In *Long-faced Antwerps* the best as *Antwerps* were Mr. Lister's *Red-chequers*, but these were no doubt left out as too short, the winners being much longer. In *Short-faces* the best were left out altogether. Pen 698 (Harrison) should have been first, and the first should have been second. In the Variety the first were *Red Turbits*, and second *Red Magpies*.

**DOCKINGS.**—1, J. Walker, Rochdale. **SPANGLED.**—*Black*.—1 and 2, H. Belden, Golestock, Kighley. 3, J. Thresh, Bradford; 4, W. Wilkins, Ebury. **GAME.**—*Black-breasted and other Reds*.—1, A. & S. Sugden, Swinley, Clackhoughton. 2, E. Lund, Gouthwaite, Ollingworth. 3, H. Fortuna, Kighley.

**Duckwings** or any other variety. 1, E. Walker, Golestock. 2, W. Spencer, Harworth. 3, H. Wilson, Crookham, Kighley. **COCHINS.**—*Golden-pencilled*.—1, J. Walker. 2, C. Stigwick, Kighley. **HAMPSHIRE.**—*Golden-pencilled*.—1 and 2, H. Belden. 3, J. Robinson, Garstang. 4, W. Clayton, Hawtholme, Kighley. **HAMPSHIRE ON CRITTEPAT.**—*Silver-pencilled*.—1 and 2, H. Belden. 3, J. Robinson. **HAMPSHIRE.**—*Golden-spangled*.—1 and 2, H. Belden. 3, T. Deas, Kighley. *Silver-spangled*.—Cup and 1, J. Robinson. 2, H. Belden. **HAMPSHIRE.**—*Black*.—1 and 2, H. Belden. **POULDS.**—Cup and 1, H. Belden. **BANTAMS.**—*Game*.—1, A. & S. Sugden, Swinley, Clackhoughton. 2, A. Smith, Northowram, Halifax. *Any variety*.—1 and 2, H. Belden. 3, H. Belden. 4, H. Belden. 5, W. H. Robinson, Kighley. **ANY OTHER VARIETY.**—1, H. Wilkins, Ebury. 2, T. Fye, Lancaster. 3, H. Belden, Ebury. 4, F. Walton, Ebury.

### YOUNG POULTRY.

**DORKINGS.**—1 and 2, T. Brides, Cononley. 3, J. Walker. 4, J. Newton, Skipton. **SPANISH.**—*Black*.—1, J. Roberts, Abergview, Skipton. 2, H. Wilkins. 3, J. Powell, Bradford. **GAME.**—*Black-breasted and other Reds*.—1, H. Fortuna, Kighley. 2, W. Tiltman, Cononley, Barnoldswick. 3, E. Lund & J. C. Dixon, Ebury. 4, J. Wilkins. 5, J. Foxcroft, Skipton, Skipton. *Duckwings* or any other variety. 1, C. F. Walton, Horcliffe, Ebury. 2, H. Walker. **COCHINS.**—1 and 2, U. Stigwick. **HAMPSHIRE.**—*Golden-pencilled*.—1, H. Belden. 2, W. Clayton, Lathholme, Kighley. 3, J. Clayton, Ebury. **HAMPSHIRE ON CRITTEPAT.**—*Silver-pencilled*.—1 and 2, E. W. Roswell, Ebury, Skipton. 3, H. Fickles. **HAMPSHIRE.**—*Golden-spangled*.—1, H. Belden. 2, H. Fickles. *Silver-spangled*.—1, H. Belden. 2 and 3, H. Robinson, Skipton, Skipton. **HAMPSHIRE.**—*Black*.—1, G. Magwick. 2, C. Stigwick; H. Belden. 3, H. Belden. **POULDS.**—1 and 2, H. Belden. **BANTAMS.**—*Game*.—1 and 2, H. Belden. 3, A. & S. Sugden, Swinley, Clackhoughton; 4, Noble, Skipton, Ebury. *Any other variety*.—1, H. Belden. 2, W. H. Robinson, Kighley. 3, H. Belden. **ANY OTHER VARIETY.**—1, T. Fye, Lancaster. 2, H. Belden. 3, W. Hartley, Ebury. **DOCKINGS.**—1, J. Walker. **SPANISH.**—*Black*.—1 and 2, J. Walker. 3, J. Newton, Skipton. 4, J. Walker. *Any other variety*.—1 and 2, J. Walker. 3, C. Brown, Ebury. **TUMBLERS.**—1, J. Walker. 2, T. Brides, Skipton.

### FIGURES.

### BRECON SHOW OF POULTRY, &c.

The first annual Show was held at Brecon in the Market House on the 25th ult. Billett's pens were used and well arranged; those for the Cats, with red cushions and sand, looked very neat. For a first attempt the entries were very good. There was an excellent Committee, this department being under the special management of W. W. Ounick, Esq.

**Dorkings** headed the list with three good pens; the *Cochins* though good were shabby. *Brahma Pootras*, *Dark*, were good, but out of feather; the *Lights* being better. In *Hamburgs* *Gold-pencils* and *Spangles* were very good; the first *Spangled*, and second and third *Pencilled*. The first in *Silvers* also being a well-known pen of *Spangles*, and second and third *Pencils*. The first in *Polands* were *Silvers*, very first-rate; second fair *Blacks*, but the others poor. In *Game*, *Reds*, the birds were very good in style and quality, but mostly out of feather, though the first *Black Reds* were in fair trim; *Brown Reds* were second. *Duckwings* had three pens, good, but out of feather. *Whites* and *Piles* were but moderate; the first *Pile*, and second *White*, a fair pen for this colour. In *French* first and third were *Oréves*, and second *Houdans*; the first a real grand pair. The variety was one of the best classes in the Show, and two firsts were awarded to *Malays* and *Black Hamburgs*, second to *White Malays*, and third to *Sultans*. *Bantams*, *Game*, were in bad feather in both classes; but in the Variety the birds were in splendid form, first *Gold*, and second and third *Silver* *Sabbrights*. In cockerel and pullet of the larger varieties *Light Brahmas* were first and *Dark* second. The class for other varieties of chickens, first were *Silver-spangles* of rare quality, second good forward *Spanish*, third *Brown Red Game*, and extra third *Gold-pencils*, a capital pen of *Black Reds* being also very highly commended. The winners in *Rouen Ducks* were uncommonly good as far as regards the winners, but many of the others, though very good in other points, were bad in bill. In the Variety class *White* and *Brown* *Decoys* won the prizes. In *Geese* first were *Toulouse*, and second *White Embden*, both pens large and in fine order, while some good pens were also noticed. In the *Selling* class for poultry there was nothing of note; but *Ducks* were very good and cheap, and the winners *Rouen* and *Aylesbury*.

The one class for *Canaries* had thirteen entries; first a Cinnamon Norwich, second Variegated Norwich, and third a Clear Buff Yorkshire; altogether a good class.

There were eleven classes for *Pigeons*; first in Carriers was a grand Black, with very good eye and beak-wattle; second a Black cock, good in beak, but not equal in eye; highly commended a Dun hen, a nice bird in all respects, but too light to win here. In Pouters first was Blue and second White, both cocks of fair quality. In Short-faced Tumblers first was a good all-round Almond; second a Kite, unusually good in head; and very highly commended an Almond and Red Agate. Jacobins poor except the first, a Red. Fantails a large class, the winners White, and good alike in carriage and tail, there being also a good Blue and a Silver. Nuns were Black and well shown, clear and correct in marking. Barbs, Black, the first good in head, second rather long in face but well developed in eye. Antwerps poor except the first-prize Short-faced Red Ohequer cock. In Owls and Turbits first was a very small White Owl, second a Red Turbit, and very highly commended a good Blue Turbit. For the best of any other variety first was awarded to a pair of Blondinettes, and second to a Black Magpie.

There were four classes for *Cats*, but the classification of these is not at all understood in this quarter, for in the class for Tortoiseshells every entry was Tortoiseshell-and-white, a good lot, however, and in consequence the prizes were awarded. In that for Tabbies Mr. Baxter's Lion was first; second a handsome Silver-Grey Tabby; and third a dark one. Many very large and good animals were left out, as they were marked with white. Long-haired Cats had a class; a very good White one was first, and Yellow Tabby second, and a moderate White third. In the Variety there was not a good one.

**DORKINGS**.—1, Mrs. E. Williams. 2, H. Feast. **COCHIN-CHINAS**.—1, Mrs. Davies, Talybot. 2, J. G. Holford, Buckland, Brecon.

**BRAMA POUTERS**.—Dark.—1, W. Morris, Ross. 2, H. Feast. 3, J. Ferris, Brecon. Light.—1, T. A. Dean, Marden. 2, H. Feast. 3, Mrs. H. J. Bailey, Rosedale, Tenbury. Ac. Rev. H. Williams, Brecon.

**FRANKE**.—1, T. Trumper.

**HAMBURGS**.—Gold-pencilled and Spangled.—1, H. Feast. 2 and 3, Mrs. Wolla, Monmouth. Silver-pencilled and Spangled.—1, J. Carr, Swansea. 2, H. Feast. 3, H. W. Evans, Aberdare.

**POLANDS**.—1, J. Hinton, Warminster. 2, H. Feast. 3, S. W. Thomas, Swansea.

**GAME**.—Black and Brown-breasted Reds.—1, J. Mason, Worcester. 2, R. Pearson, Swansea. Ac. H. M. A. Ballok, Glamorgan; W. Williams, Brecon; H. Feast; Mrs. H. H. Vivian, Worcester. *Duckwings and other Greys and Blues*.—1, J. Mason. 2, D. W. J. Thomas, Brecon. 3, H. Feast. White, Piles, and any other variety.—1, H. P. Powell, Brecon. 2, E. C. Phillips, Brecon. 3, W. L. Blake, Llandaf.

**FRENCH**.—1, H. Feast. 2, S. W. Thomas. 3, Mrs. H. J. Bailey. **ANY OTHER DISTINCT BREED**.—1, H. Feast. Extra 1, W. L. Blake. 2, T. Cropper, Baco. 3, T. F. Phelps, Ross. vhs, J. Hinton. Ac. E. L. Williams, Swansea.

**BANTAMS**.—Game, Black and Brown-breasted Reds.—1, E. C. Phillips. 2, H. Feast. Ac. G. Morton, Brecon; G. Lewis, Swansea. *Game, any other colour*.—1, J. H. Watkins, Hereford. *Any other variety*.—1 and 2, J. W. Lloyd, Kingston. 3, G. Holloway, jun., Stroud. Ac. T. Cropper, H. Feast.

**COCHINS**.—DORKINGS, OR BRAHMS—*Ornaments*.—1, T. A. Dean. 2 and 3, J. G. Holford. 4, H. Feast. Ac. P. S. Williams.

**ANY OTHER VARIETY**.—*Chickens*.—1, J. Carr. 2, H. Feast. 3, Mrs. H. H. Vivian. Extra 3, R. W. W. Homer, Almondbury Hill. vhs, W. Dring, Faversham; D. W. J. Thomas; T. Carman. Ac. H. P. Powell; D. Lewis, Thornhill; C. D. Lewis.

**DUCKS**.—*Rouen*.—1, W. Williams. 2, Mrs. H. J. Bailey. Ac. Mrs. E. L. Lloyd, Brecon; Mrs. J. Richards; W. Bevan, Swansea; Mrs. H. H. Vivian. c, Miss J. Probert, Brecon. *Aylesbury*.—1, Mrs. H. J. Bailey. 2, Miss K. Jones, Llanfahan. *Any other variety*.—1, E. C. Phillips. Ac. Mrs. H. J. Bailey; Mrs. Rolfe. c, Mrs. Rolfe.

**GREENS**.—1 and 2, Mrs. H. J. Bailey. 3, Mrs. J. Probert. Ac. E. Williams, Brecon. c, E. Williams; Mrs. G. Holford, Buckland.

**TURKEYS**.—1, Mrs. G. Holford.

**SELLING CLASS—FOWLS**.—1 and 2, J. G. Holford. 3, J. H. Watkins. c, F. L. Green, Carmarthen.

**SELLING CLASS—DUCKS**.—1 and 2, Mrs. E. L. Lloyd. 3, Mrs. H. J. Bailey. c, G. G. Holford. c, D. J. H. Cannick.

**EXTRA STOCK**.—1 and 2, W. W. Cannick (Dark Brahms hens). 3 and 4, D. W. J. Thomas (Game hens).

**COTTAGE CLASS**.—1, D. Shepherd, Brecon. 2, T. Ball, Brecon. 3, G. Ross, Brecon. Ac. W. Williams.

**LOCAL CLASS—Canaries**.—1 and 2, J. Morris, Brecon. 3, W. Price, Brecon. Ac. J. Trotman, Brecon; J. Morris; W. Price.

#### PIGEONS.

**CARRIERS**.—*Cock or Hen*.—1, J. W. Lloyd. 2, T. F. Phelps. Ac. H. Yardley, Birmingham; J. James, Somerset; P. R. Spencer, Hereford. c, J. James; P. R. Spencer.

**POUTERS**.—*Cock or Hen*.—1, H. Yardley. 2, P. R. Spencer. vhs, W. J. Davies, Swansea. Ac. J. Sperry, Carmarthen; P. R. Spencer.

**TUMBLERS**.—*Short-faced*.—*Cock or Hen*.—1, G. Holloway, jun. 2, H. Yardley. vhs, H. Yardley; H. P. Powell. Ac. W. J. Davies. c, H. P. Powell.

**JACOBS**.—*Cock or Hen*.—1, F. Stedie, Pantmorlais. 2, T. F. Phelps. Ac. H. Yardley. c, W. J. Davies.

**FANTAIL COCK or Hen**.—1, J. Walker, Newark. 2, W. Morris. vhs, J. Hinton. 3, P. R. Spencer. Ac. J. Walker; H. Yardley; P. R. Spencer.

**NUNS**.—*Cock or Hen*.—1 and 2, F. Stedie. Ac. H. Yardley; T. A. Dean. c, T. A. Dean.

**BARBS**.—*Cock or Hen*.—1, H. Yardley. 2, P. R. Spencer.

**ANTWERPS**.—*Cock or Hen*.—1 and 2, H. Yardley. Ac. E. L. Lister, Uck; J. Sperry. c, J. James.

**TURBIS**.—*Owls*.—*Cock or Hen*.—1, H. Yardley. 2, T. F. Phelps. vhs, W. Morris; H. Yardley. Ac. F. Stedie; T. Cropper.

**FLYING TUMBLER**.—*Cock or Hen*.—1, H. Yardley. 2, H. W. Evans. Ac. H. W. Evans; Dr. Stanley, Brecon; S. P. Powell.

**ANY OTHER VARIETY**.—1, H. Yardley. 2, J. James. vhs, Miss M. L. King, Brecon.

#### CATS.

**LONG HAIRIED**.—*Any colour*.—1, W. Harris, Merthyr. 2, Miss E. Ford, Treherford, Brecon.

**TABBY**.—*Short-haired, any colour*.—1 and 2, P. R. E. Baxter, Dalston Lane, London. 3, J. Bryant, Merthyr. 4, Mrs. E. L. Lloyd, Glanbonda, Brecon. Ac. D. Thomas, Watton, Brecon; J. Morgan, Brecon; A. F. Sparrow, Abergavenny.

**TORTOISESHELL**.—1, Miss M. Jones, Llanfahan, Brecon. 2, E. Masand, Brecon. 3, J. Richards, Brecon. Ac. Miss E. Will-on, Brecon.

**ANY OTHER VARIETY**.—1, W. Lloyd, Hay. 2, Mrs. G. Jones, Brecon. 3, E. Hill, Brecon.

**JUDGES**.—Mr. E. Hutton, Pudsey, Leeds.

#### HALIFAX SHOW OF POULTRY, &c.

THE Halifax and Calder-vale (which is one of the leading Societies of the West Riding) held its annual meeting on the 28th of August in the Craven Lodge grounds, which are well suited for the purpose, although at a distance from the town. The poultry and Pigeons were exhibited in Turner's pens and in the open field, and well arranged for seeing. A great change had been made in the schedule, the whole being for young birds in poultry; and for a show of this character the entries were very fair, 145 pens; but though the prizes were very good in Pigeons, the entries were not good, 97 pens only, but the quality was most select, as will be seen by the list.

Neither the cockerels nor pullets were of any note in Black Red Game, but the Brown Reds were better, the cockerels a good lot, though rather late. In both cases the prizes were awarded to birds prematurely dubbed, a thing that in our opinion ought to be discountenanced, for as good a Game cock can be found under a comb as can be found minus that ornament. In pullets, Brown Reds, the first bird, Wright's, was by far the best, but may have been passed over on account of the trimming, which is at any time objectionable on the face of a Game hen. Piles were very good in both the classes, as also Duckwings, the first cockerel being a grand fellow. *Spanish* were good, and placed as at Skipton; while *Dorkings* were reversed from the previous day's decision, proving, as we have often asserted, that among the first three or four pens at any show a decision may be reversed without the least inconsistency. In *Cochins* there were none good except the winners; the first Partridge and second Buff, the cup for best pen in the Show being awarded here. *Brahmas* were bad if we except the winners, which were pretty good. In *Hamburghs* the entries were very poor—only one pen of Gold-spangles, two of Silvers, and two of Golden-pencilled, while in Silver-pencils there were six of good quality. The best pen in Black *Hamburghs* was left out—viz., the pen first at Skipton the day before, while a pen commended there was placed first. In Red Game *Bantams* first were Black, and second Brown Reds, and correctly placed; Piles and Duckwings winning in the next class. Black *Bantams* moderate.

*Geese* good, first White and second Toulouse. *Rouen Ducks* were better placed than at Skipton, the right pen falling in for first. The Variety class in Ducks was very good; but the Selling class poor.

In *Pigeons* we are reluctantly compelled to differ very materially with many of the awards, but justice to the exhibitors compels us to waive all feeling on the subject, as it would be utterly impossible to defend them on any principle whatever. In Pouter cocks first was a Blue that might have been placed second, being thick in girth and bad in colour; the second being a poor White, bare on shins; while the best, a Blue, in fine feather and show, and grand in colour, was only highly commended, pen 638 (Fulton). In hens also pen 643 (also Fulton) was the bird of our choice; the second Red, a smart hen, was rightly placed. In Carrier cocks, however, the greatest error occurred. Pen 647 (Fulton) was a Black, which was the bird for the cup without a second look, grand in beak and eye wattle, only highly commended; the first and cup for best pen going to a Dun cock, a good bird, entitled to second; while the second was given to a Black, once good, but with a stiff wing. Pen 648, a young Black, was wonderful in head properties, but a little thick in body. In hens the best was also left out, a Black of more than common merit, large in eye and beak wattle; the first going to a good Dun, which might have been second; the second-prize winner was a Black, uncommonly good in beak, but young as compared with the others. Highly commended pen 655 (Yardley) a capital Black. Almond Tumblers rightly placed, and most extraordinary in head properties. Tumblers any other, first Yellow Mottles, rather coarse; second Black Mottles, smaller and better. *Dragoons* good and well placed; first Blue and second Silvers. Trumpeters, two pens, might have been reversed; first were Mottles and second Blacks. Foreign Owls both White and well placed; but in Turbits the best were pen 687 (Stephenson), Blues, highly commended; the first Reds were bad in crown; while the second Yellows were rightly placed. In Jacobins the first were Reds, splendid in hood and chain; the second Reds very poor and spindly; the same exhibitor's highly commended birds being better; while the second best were pen 693, Yellows, and not noticed. Fantails were good and well judged. Barbs all Blacks, very good; pen 702 containing a young cock of rare merit. Magpies, first Reds and second Yellows, and very good. Antwerps, first Short-faced Duns, very good; pen 711 were second best; but second was awarded to a pair in which the cock had a yellow, and hen a pearl eye, a poor pair indeed. In the Variety class was the most beautiful pair of what we will term Tortoiseshell Frill-





**CARRIAGES**.—1 and 2, J. Hainsdale, 2 and 3, J. Hodgson, Driffield.  
**TURKISH**.—1, E. A. Thornton, Hull; 2, G. W. Lythe, Cottingham; 3, T. E. Stephenson, As, J. Hainsdale.  
**ANTWERPS**.—1 and 2, R. Smith, Hull; 3, J. Hainsdale.  
**JACOBIUS**.—1, T. P. Carver, 2, — Sylvester, 3 and 4, J. Hainsdale.  
**FANTAILS**.—1, J. Walker, Newark; 2, T. E. Stephenson, 3, J. Hainsdale, As, J. Hainsdale; 4, J. Walker; 5, J. F. Lovelidge.  
**DRAGOONS**.—1, E. Woods, Mansfield; 2 and 3, J. Hainsdale, As, J. Payne, Beverley.  
**TURKISH**.—1, A. & W. H. Sylvester, 2, W. & E. Adams, Beverley; 3, J. Hainsdale, As, J. Hainsdale, W. & E. Adams.  
**MAINE**.—1 and 2, O. Wood, Hull; 3, J. Hainsdale, As, J. Hainsdale; 4, A. W. H. Sylvester.  
**MINE**.—1, T. E. Stephenson, 2 and 3, J. Hainsdale.  
**OWLS**.—1, T. E. Stephenson, 2 and 3, J. Hainsdale, As, J. Hainsdale; 4, E. A. Thornton (3).  
**BALLING CLASS**.—1, Mrs. Stabler, 2, A. & W. H. Sylvester, 3, C. N. Lythe.  
**RABBITS**.  
**LONG-EARED**.—1 and 2, T. & E. J. Fell, Blackburn; 3, A. Robson, Northampton. Also, J. Hainsdale, Huddersfield; As, Mrs. H. Pickworth, Scadding; T. Myton, York; C. R. Merritt, Beverley; W. M. Clark, Hull; R. Harrison, Hull; G. Conyers, Hull.  
**SILVER-GREY**.—1 and 2, J. Hainsdale, 3, G. Conyers; J. Ashley, Hull. As, A. Cony, Barton; 4, G. Conyers; T. Myton.  
**SHIRAZIAN**.—1, J. Hainsdale, 2, A. W. Whitehouse, Northampton; 3, T. Myton; J. Hainsdale, 4, G. Conyers, 5, C. O. Mason, Rochdale.  
**BALLING CLASS**.—1, T. Myton, 2, J. Blakey, Driffield; 3, J. Wharton, Hull; 4, J. Ashley; — Graeven, Cleethorpe (3); As, J. Hainsdale, 5, J. Ashley; J. Hainsdale.  
**ANY OTHER VARIETY**.—1, Mrs. Pickworth; — Graeven, 2, W. Donkin, Driffield; J. Hainsdale, 3, J. Ashley, 4, T. R. Topham, Driffield; — Graeven; J. Hainsdale, As, T. & J. E. Fell.  
**JUDGES**.—Poultry: Mr. Cannan, Bradford; Mr. Ferguson, Beverley. Pigeons: Mr. Newbitt, Epworth. Rabbits: Mr. A. Hudson, Paragon Street, Hull.

### BURY POULTRY SHOW.

As usual this Society issued a good schedule, but the classes were mostly for chickens. In *Spanish* cockerels first was a very promising bird, pressed by two or three others of good merit. In pullets first was a very good bird well developed. In Buff *Cochins* Mr. Bidgwick had all his own way with well-known birds, but in Partridge he was hard pressed. First cockerel, a fine, big, rich bird; second also very good, but hooked. The first pullet we did not like, her colour being bad; second very good. Very highly commended was a capital Black indeed. In Dark *Brahmas* the two cockerels were the well-known champions of Mr. Ansdell, second being the first Birmingham; Mr. W. A. Wright's having a bad comb. In pullets we did not like the winner, which was the same we have before noticed—not well pencilled, and open in breast; we prefer the second. In Light *Cochins* first was a thick well-made bird, good in feather and comb; second not good in comb; highly commended a fine bird which we preferred to second. In pullets first was a very good one, second fair in size and colour, highly commended (Long) smaller but very neat. In *Games* the first old bird was a very rich fellow of capital style. Mr. Fletcher's was our selection for second. In cockerels one pen only appeared, the first pullet was good. In other colours the judging was much at fault, the second being infinitely preferable to first in both cases. *Polands* did not show well: the cockerels were not good; pullets better, both being nice birds. In *Golden-spangled Hamburgs* the first cockerel was not a good colour, second decidedly better to our mind. In pullets also we preferred the second to the first. In *Silvers* both winners were smart and well marked. The first pullet was a beauty, second fair. In *Gold-pencils* first and second were both good birds. In *Pencils* pullets both winners were nice birds. In *Silvers* the first in both classes were excellent indeed; the second cockerel a bad colour. The first Black cockerel was very neat, second fair. Pullets were a nice class, the first being especially nice in bloom. In *Dorkings* both cockerels were large and good, as was the first pullet. In the Variety class the first Houdan was a fine bird if we except his comb; the pullet, also a Houdan, was a beauty. In *Games* *Bantams* the first cockerel was a little gem in every way, second a smart bird with a bad eye. In other colours but *Reds* the winner was a real good bird. In the Variety class first went to well-known Silver-laced, second to *Pekins*, Blacks being highly commended only. The first single cock was a very good Black *Red*, second also a very good bird. In chickens, any colour, the first cockerel was a beautiful *Sabright*, as was the second pullet; the first *Games* pullet being very leggy and neat. In old birds, any breed, first went to Dark *Brahmas* of great merit; second to Buff *Cochins* in bad feather; and third to *Spanish*. This was a good class. In *Aylesbury Ducks*, first were very fine, and the rest good. *Bouzas* were both numerous and good, both the winners being most excellent, as were highly commended (*Unsworth*). *Geese* and *Turkeys* were all capital, but very few.

*Pigeons* were more numerous than poultry. Pouters, however, were poor to commence with. In *Carriers* a good lot, first went to a slashing *Dun*, second was neat in eye and colour. In *Tumblers*, first was good in head, beak, and colour; second, fair. *Long-faces* we did not fancy. In *Owls*, foreign, first went to a little gem of capital quality in head; second also a good Pigeon, as were several unnoticed birds. *English Owls* were very strong and deserved more notice from the Judge. The winner was a lovely Blue of great style and head qualities. *Barbs* were a very

good lot, first being especially nice in skull; second neat Blacks. *Turbits* were not so good throughout, but the winners were good in head and colour. The first *Jacobin* had a capital mane, and was rich in colour. *Antwerps* were a capital lot, some good ones (*Gamon* and *Entwales*) being unnoticed. In *Fantails*, first excellent in carriage; second capital in tail. *Dragoons* were very numerous, and a grand lot indeed, though we should have placed them different. In the variety class were good *Loes*, *Magpies*, and *Swallows*, deserving more prizes.

**BRANDS**.—Cockerel.—1, J. Powell, Bradford; 2, H. Wilkinson, Kirby, Leeds; 3, E. Walton, Sawtwell; 4, J. Thresh, Bradford. Pullet.—1, E. Walton; 2, J. Powell.

**Yates**.  
**GAME BANTAMS**.—Black or Brown.—1, G. Hall, Kendal; 2, W. F. Entwistle, Westfield, Bradford; As, E. Walton, Horcliffe; Any other variety.—1, E. Walton; 2, W. F. Entwistle; As, J. Riley, Ascrington.  
**GAME BANTAMS**.—1, G. Hall; 2, E. Walton.  
**BANTAMS**.—Any other variety except *Gems*.—1, M. Cook, Chorlton; 2, E. R. Smith, Brooklands, Preston; As, A. Smith, Northampton.  
**BANTAMS**.—Cockerel.—1, M. Cook; 2, E. Walton. Pullet.—1, G. Hall; 2, M. Cook.  
**EXTRA PRIZES**.—1, T. J. Ansdell; 2, J. Walker; 3, H. Wilkinson.  
**DUCKS**.—*Aylesbury*.—1, J. Walker; 2, C. Holt, Rochdale; 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.  
**GOOSE**.—*White*.—1, J. Walker; 2, J. Walker.  
**GOOSE**.—*Grey*.—1, J. Walker; 2, T. Mills, Goscombe; 3, G. M. Boyle, Rochdale; 4, T. Mills.  
**TURKEYS**.—1 and 2, J. Walker. Poults.—1, J. Walker.

### FIGURES.

**POULTRY**.—Cock or Hen.—1, H. Yardley, Birmingham; 2, D. M. Garalde, Brighton.  
**CARRIAGE**.—Cock or Hen.—1, J. Walker; 2, J. Chadwick, Bolton.  
**TURKISH**.—Short-faced.—Cock or Hen.—1, E. U. Fielding, Rochdale; 2, T. W. Townson, Bowdon; 3, J. Brown, Stoneclough; 4, W. Ellis, Lids, Leeds.  
**OWLS**.—Foreign.—Cock or Hen.—1, T. W. Townson, Bowdon; 2, E. O. Fielding, English; 3, J. Chadwick, Bolton; 4, E. Unsworth, Cheshire; 5, H. Hume.  
**MAINE**.—Cock or Hen.—1, J. Walker; 2, J. Thresh, Bradford.  
**TURKISH**.—Cock or Hen.—1, G. Richardson, Rochdale; 2, J. W. Townson; 3, J. Hainsdale, As, J. Hainsdale, 4, J. Hainsdale, 5, J. Hainsdale, 6, J. Hainsdale, 7, J. Hainsdale, 8, J. Hainsdale, 9, J. Hainsdale, 10, J. Hainsdale, 11, J. Hainsdale, 12, J. Hainsdale, 13, J. Hainsdale, 14, J. Hainsdale, 15, J. Hainsdale, 16, J. Hainsdale, 17, J. Hainsdale, 18, J. Hainsdale, 19, J. Hainsdale, 20, J. Hainsdale, 21, J. Hainsdale, 22, J. Hainsdale, 23, J. Hainsdale, 24, J. Hainsdale, 25, J. Hainsdale, 26, J. Hainsdale, 27, J. Hainsdale, 28, J. Hainsdale, 29, J. Hainsdale, 30, J. Hainsdale, 31, J. Hainsdale, 32, J. Hainsdale, 33, J. Hainsdale, 34, J. Hainsdale, 35, J. Hainsdale, 36, J. Hainsdale, 37, J. Hainsdale, 38, J. Hainsdale, 39, J. Hainsdale, 40, J. Hainsdale, 41, J. Hainsdale, 42, J. Hainsdale, 43, J. Hainsdale, 44, J. Hainsdale, 45, J. Hainsdale, 46, J. Hainsdale, 47, J. Hainsdale, 48, J. Hainsdale, 49, J. Hainsdale, 50, J. Hainsdale, 51, J. Hainsdale, 52, J. Hainsdale, 53, J. Hainsdale, 54, J. Hainsdale, 55, J. Hainsdale, 56, J. Hainsdale, 57, J. Hainsdale, 58, J. Hainsdale, 59, J. Hainsdale, 60, J. Hainsdale, 61, J. Hainsdale, 62, J. Hainsdale, 63, J. Hainsdale, 64, J. Hainsdale, 65, J. Hainsdale, 66, J. Hainsdale, 67, J. Hainsdale, 68, J. Hainsdale, 69, J. Hainsdale, 70, J. Hainsdale, 71, J. Hainsdale, 72, J. Hainsdale, 73, J. Hainsdale, 74, J. Hainsdale, 75, J. Hainsdale, 76, J. Hainsdale, 77, J. Hainsdale, 78, J. Hainsdale, 79, J. Hainsdale, 80, J. Hainsdale, 81, J. Hainsdale, 82, J. Hainsdale, 83, J. Hainsdale, 84, J. Hainsdale, 85, J. Hainsdale, 86, J. Hainsdale, 87, J. Hainsdale, 88, J. Hainsdale, 89, J. Hainsdale, 90, J. Hainsdale, 91, J. Hainsdale, 92, J. Hainsdale, 93, J. Hainsdale, 94, J. Hainsdale, 95, J. Hainsdale, 96, J. Hainsdale, 97, J. Hainsdale, 98, J. Hainsdale, 99, J. Hainsdale, 100, J. Hainsdale.  
**JACOBIUS**.—Cock or Hen.—1, J. Brown, Stoneclough; 2, T. Holt, Bradford.  
**ANTWERPS**.—Short-faced.—Cock or Hen.—1, J. Wright, Manchester; 2, A. Bingham, Manchester; 3, J. Wright, Manchester; 4, J. Wright, Manchester; 5, J. Wright, Manchester; 6, J. Wright, Manchester; 7, J. Wright, Manchester; 8, J. Wright, Manchester; 9, J. Wright, Manchester; 10, J. Wright, Manchester; 11, J. Wright, Manchester; 12, J. Wright, Manchester; 13, J. Wright, Manchester; 14, J. Wright, Manchester; 15, J. Wright, Manchester; 16, J. Wright, Manchester; 17, J. Wright, Manchester; 18, J. Wright, Manchester; 19, J. Wright, Manchester; 20, J. Wright, Manchester; 21, J. Wright, Manchester; 22, J. Wright, Manchester; 23, J. Wright, Manchester; 24, J. Wright, Manchester; 25, J. Wright, Manchester; 26, J. Wright, Manchester; 27, J. Wright, Manchester; 28, J. Wright, Manchester; 29, J. Wright, Manchester; 30, J. Wright, Manchester; 31, J. Wright, Manchester; 32, J. Wright, Manchester; 33, J. Wright, Manchester; 34, J. Wright, Manchester; 35, J. Wright, Manchester; 36, J. Wright, Manchester; 37, J. Wright, Manchester; 38, J. Wright, Manchester; 39, J. Wright, Manchester; 40, J. Wright, Manchester; 41, J. Wright, Manchester; 42, J. Wright, Manchester; 43, J. Wright, Manchester; 44, J. Wright, Manchester; 45, J. Wright, Manchester; 46, J. Wright, Manchester; 47, J. Wright, Manchester; 48, J. Wright, Manchester; 49, J. Wright, Manchester; 50, J. Wright, Manchester; 51, J. Wright, Manchester; 52, J. Wright, Manchester; 53, J. Wright, Manchester; 54, J. Wright, Manchester; 55, J. Wright, Manchester; 56, J. Wright, Manchester; 57, J. Wright, Manchester; 58, J. Wright, Manchester; 59, J. Wright, Manchester; 60, J. Wright, Manchester; 61, J. Wright, Manchester; 62, J. Wright, Manchester; 63, J. Wright, Manchester; 64, J. Wright, Manchester; 65, J. Wright, Manchester; 66, J. Wright, Manchester; 67, J. Wright, Manchester; 68, J. Wright, Manchester; 69, J. Wright, Manchester; 70, J. Wright, Manchester; 71, J. Wright, Manchester; 72, J. Wright, Manchester; 73, J. Wright, Manchester; 74, J. Wright, Manchester; 75, J. Wright, Manchester; 76, J. Wright, Manchester; 77, J. Wright, Manchester; 78, J. Wright, Manchester; 79, J. Wright, Manchester; 80, J. Wright, Manchester; 81, J. Wright, Manchester; 82, J. Wright, Manchester; 83, J. Wright, Manchester; 84, J. Wright, Manchester; 85, J. Wright, Manchester; 86, J. Wright, Manchester; 87, J. Wright, Manchester; 88, J. Wright, Manchester; 89, J. Wright, Manchester; 90, J. Wright, Manchester; 91, J. Wright, Manchester; 92, J. Wright, Manchester; 93, J. Wright, Manchester; 94, J. Wright, Manchester; 95, J. Wright, Manchester; 96, J. Wright, Manchester; 97, J. Wright, Manchester; 98, J. Wright, Manchester; 99, J. Wright, Manchester; 100, J. Wright, Manchester.  
**FANTAILS**.—Cock or Hen.—1, W. J. Warkent, Malybridge; 2, J. T. Liveridge, Newark.  
**DRAGOONS**.—Blue.—Cock or Hen.—1, J. Brown, Stoneclough; 2, A. Bingham, Manchester; 3, J. Wright, Manchester; 4, J. Wright, Manchester; 5, J. Wright, Manchester; 6, J. Wright, Manchester; 7, J. Wright, Manchester; 8, J. Wright, Manchester; 9, J. Wright, Manchester; 10, J. Wright, Manchester; 11, J. Wright, Manchester; 12, J. Wright, Manchester; 13, J. Wright, Manchester; 14, J. Wright, Manchester; 15, J. Wright, Manchester; 16, J. Wright, Manchester; 17, J. Wright, Manchester; 18, J. Wright, Manchester; 19, J. Wright, Manchester; 20, J. Wright, Manchester; 21, J. Wright, Manchester; 22, J. Wright, Manchester; 23, J. Wright, Manchester; 24, J. Wright, Manchester; 25, J. Wright, Manchester; 26, J. Wright, Manchester; 27, J. Wright, Manchester; 28, J. Wright, Manchester; 29, J. Wright, Manchester; 30, J. Wright, Manchester; 31, J. Wright, Manchester; 32, J. Wright, Manchester; 33, J. Wright, Manchester; 34, J. Wright, Manchester; 35, J. Wright, Manchester; 36, J. Wright, Manchester; 37, J. Wright, Manchester; 38, J. Wright, Manchester; 39, J. Wright, Manchester; 40, J. Wright, Manchester; 41, J. Wright, Manchester; 42, J. Wright, Manchester; 43, J. Wright, Manchester; 44, J. Wright, Manchester; 45, J. Wright, Manchester; 46, J. Wright, Manchester; 47, J. Wright, Manchester; 48, J. Wright, Manchester; 49, J. Wright, Manchester; 50, J. Wright, Manchester; 51, J. Wright, Manchester; 52, J. Wright, Manchester; 53, J. Wright, Manchester; 54, J. Wright, Manchester; 55, J. Wright, Manchester; 56, J. Wright, Manchester; 57, J. Wright, Manchester; 58, J. Wright, Manchester; 59, J. Wright, Manchester; 60, J. Wright, Manchester; 61, J. Wright, Manchester; 62, J. Wright, Manchester; 63, J. Wright, Manchester; 64, J. Wright, Manchester; 65, J. Wright, Manchester; 66, J. Wright, Manchester; 67, J. Wright, Manchester; 68, J. Wright, Manchester; 69, J. Wright, Manchester; 70, J. Wright, Manchester; 71, J. Wright, Manchester; 72, J. Wright, Manchester; 73, J. Wright, Manchester; 74, J. Wright, Manchester; 75, J. Wright, Manchester; 76, J. Wright, Manchester; 77, J. Wright, Manchester; 78, J. Wright, Manchester; 79, J. Wright, Manchester; 80, J. Wright, Manchester; 81, J. Wright, Manchester; 82, J. Wright, Manchester; 83, J. Wright, Manchester; 84, J. Wright, Manchester; 85, J. Wright, Manchester; 86, J. Wright, Manchester; 87, J. Wright, Manchester; 88, J. Wright, Manchester; 89, J. Wright, Manchester; 90, J. Wright, Manchester; 91, J. Wright, Manchester; 92, J. Wright, Manchester; 93, J. Wright, Manchester; 94, J. Wright, Manchester; 95, J. Wright, Manchester; 96, J. Wright, Manchester; 97, J. Wright, Manchester; 98, J. Wright, Manchester; 99, J. Wright, Manchester; 100, J. Wright, Manchester.  
**PELLING CLASS**.—Cock or Hen.—1, J. Stanley, Blackburn; 2, W. Martland, Dees, Bolton.

### RABBITS.

**SPANISH**.—Buck or Doe.—1, J. Irving, Blackburn; 2, T. & E. J. Fell, Blackburn.  
**ANGORA**.—Buck or Doe.—1, W. Halsey, York; 2, T. & E. J. Fell.  
**SHIRAZIAN**.—Buck or Doe.—1, J. Hartley, Heywood; 2, G. Batherworth, Bolton; 3, J. Hartley, Heywood; 4, G. Batherworth, Bolton; 5, J. Hartley, Heywood; 6, G. Batherworth, Bolton; 7, J. Hartley, Heywood; 8, G. Batherworth, Bolton; 9, J. Hartley, Heywood; 10, G. Batherworth, Bolton; 11, J. Hartley, Heywood; 12, G. Batherworth, Bolton; 13, J. Hartley, Heywood; 14, G. Batherworth, Bolton; 15, J. Hartley, Heywood; 16, G. Batherworth, Bolton; 17, J. Hartley, Heywood; 18, G. Batherworth, Bolton; 19, J. Hartley, Heywood; 20, G. Batherworth, Bolton; 21, J. Hartley, Heywood; 22, G. Batherworth, Bolton; 23, J. Hartley, Heywood; 24, G. Batherworth, Bolton; 25, J. Hartley, Heywood; 26, G. Batherworth, Bolton; 27, J. Hartley, Heywood; 28, G. Batherworth, Bolton; 29, J. Hartley, Heywood; 30, G. Batherworth, Bolton; 31, J. Hartley, Heywood; 32, G. Batherworth, Bolton; 33, J. Hartley, Heywood; 34, G. Batherworth, Bolton; 35, J. Hartley, Heywood; 36, G. Batherworth, Bolton; 37, J. Hartley, Heywood; 38, G. Batherworth, Bolton; 39, J. Hartley, Heywood; 40, G. Batherworth, Bolton; 41, J. Hartley, Heywood; 42, G. Batherworth, Bolton; 43, J. Hartley, Heywood; 44, G. Batherworth, Bolton; 45, J. Hartley, Heywood; 46, G. Batherworth, Bolton; 47, J. Hartley, Heywood; 48, G. Batherworth, Bolton; 49, J. Hartley, Heywood; 50, G. Batherworth, Bolton; 51, J. Hartley, Heywood; 52, G. Batherworth, Bolton; 53, J. Hartley, Heywood; 54, G. Batherworth, Bolton; 55, J. Hartley, Heywood; 56, G. Batherworth, Bolton; 57, J. Hartley, Heywood; 58, G. Batherworth, Bolton; 59, J. Hartley, Heywood; 60, G. Batherworth, Bolton; 61, J. Hartley, Heywood; 62, G. Batherworth, Bolton; 63, J. Hartley, Heywood; 64, G. Batherworth, Bolton; 65, J. Hartley, Heywood; 66, G. Batherworth, Bolton; 67, J. Hartley, Heywood; 68, G. Batherworth, Bolton; 69, J. Hartley, Heywood; 70, G. Batherworth, Bolton; 71, J. Hartley, Heywood; 72, G. Batherworth, Bolton; 73, J. Hartley, Heywood; 74, G. Batherworth, Bolton; 75, J. Hartley, Heywood; 76, G. Batherworth, Bolton; 77, J. Hartley, Heywood; 78, G. Batherworth, Bolton; 79, J. Hartley, Heywood; 80, G. Batherworth, Bolton; 81, J. Hartley, Heywood; 82, G. Batherworth, Bolton; 83, J. Hartley, Heywood; 84, G. Batherworth, Bolton; 85, J. Hartley, Heywood; 86, G. Batherworth, Bolton; 87, J. Hartley, Heywood; 88, G. Batherworth, Bolton; 89, J. Hartley, Heywood; 90, G. Batherworth, Bolton; 91, J. Hartley, Heywood; 92, G. Batherworth, Bolton; 93, J. Hartley, Heywood; 94, G. Batherworth, Bolton; 95, J. Hartley, Heywood; 96, G. Batherworth, Bolton; 97, J. Hartley, Heywood; 98, G. Batherworth, Bolton; 99, J. Hartley, Heywood; 100, G. Batherworth, Bolton.  
**ANY OTHER VARIETY**.—Buck or Doe.—1, J. Irving; 2, T. Salsfield.  
**PELLING CLASS**.—Buck or Doe.—1, G. Batherworth, Rochdale; 2, T. Salsfield.

**CATS**.—Domesticated Tortoiseshell.—1, J. Chadwick, Bolton; 2, J. Flury, Hetham, Norwich; 3, J. H. Liveridge, 4, W. Salsfield, Bury.

**JUDGES**.—Poultry: Mr. S. Fielding, Stoke-on-Trent; Mr. T. J. Charlton, 23, Blenheim Row, Manningham, Bradford. Pigeons: Mr. T. Ridpath, Withington, Manchester; Mr. J. Taylor, Rochdale. Rabbits: Mr. J. Boyle, Blackburn.

### BURTON-ON-TRENT SHOW OF POULTRY, &c.

This event came off on Wednesday, August 28th, and was an unprecedented success, the total receipts at the doors amounting to £240, independent of railway tickets and the "permits" of upwards of a thousand subscribers. The weather was favourable throughout the afternoon, but in the morning it was anything but inviting to those residing at a distance from the town. The show of plants, flowers, fruits, and vegetables was of aver-



age merit, several of the departments being well furnished, the fruits and vegetables more especially. To comment on the great attractions of the fête would be to refer to the military concert sustained by the band of Her Majesty's 1st Life Guards and the Burton Rifle band, and to the exhibition of poultry, Pigeons, cage birds, Rabbits, and Cats, and the coopers' competition with casks. The former was a musical treat of high character, and was much appreciated; whilst the coopers' contest, representing one of the chief industries of the town, was a capital speculation, and served the purpose of the Committee most successfully. The poultry, bird, Rabbit, and Cat Show was a "great draw" on the visitors, and the Committee of the Society would do well to make this and the coopers' competition an established institution in connection with one of their fêtes every year. It would then be looked forward to, and intending competitors would consult the arrangement when deciding upon their fixtures; indeed, this is a point worthy of the Committee's notice, the financial result of the late fête—more than £80 in advance of any previous year, being a consideration of no mean importance.

**Cage Birds**, of which there were ten classes, brought about fifty entries, and formed an attractive feature of the Exhibition. Here and there were promising specimens, which, as the season advances, may very likely be heard of again. The Lizard and Mule classes were good in quality, but in the former the number was limited, three entries only having been effected, whilst Mules had eight, some of which were fit for any company. There was a class for Goldfinches and another for "British," as the catalogue specified, which was a strange way of naming the classes. In the Crystal Palace catalogue a Nightingale is eligible for entry under the heading of "Birds of Passage and Migratory Birds;" but at Burton-upon-Trent matters differ somewhat, for Thrushes and a Bullfinch (British birds proper) had to stand back for a Nightingale, which was awarded first honour in the "British" class! There was a Thrush in the class well worthy of a first prize.

Taylor, Burton-on-Trent. 2. W. Kimber. Female. 1. E. Hall, jun., Borough Fields, Walton-on-Trent. 2. E. A. Poole, Great Berkhampstead. 3. T. Weightman.

ANY OTHER VARIETY.—1. Mrs. T. W. Minton, Newcastle-under-Lyme. 2. E. Hudson, Burton-on-Trent. 3. J. Upton, Uttoxeter. Ac. W. Jones, Stapenhill.

JUDGES.—Poultry, Pigeons, and Rabbits: Mr. A. O. Worthington, and Mr. Tegetmeier. Birds: Mr. E. Beumrose, Derby. Cats: Mr. Thomas Worthington, Derby.

### GOOD EGGS.

THE old notion that "eggs are eggs" no matter of what variety or how produced, is fast dying out; still there are a great many persons among those who should know better who do not realise the effect of feed upon the quality of the egg.

There is just as much difference between the eggs of fowls allowed to roam and forage for themselves, and those which are fed regularly on good nutritious food, as there is between a leg of good Southdown mutton and that of a common half-starved sheep.

Fowls roaming over the farm and through the stable, expected through the summer months to pick up a living for themselves, eat many things they would not otherwise touch; and this strong rank food affects the taste of the eggs. The same as when a cow eats onions, cabbage or turnips, the milk at once receiving the bad flavour.

Eggs thus tainted in flavour have not the same keeping qualities as those from better-kept fowls. The richer the food the better flavoured and higher coloured the eggs. Wheat and corn, with a little animal food—scraps or cooked lights—twice or three times a week, if the fowls are on a grass run, will produce the best quality of eggs for the table.

If the fowls are confined in a small yard with no access to grass, green food must be provided for them. A small feed daily of chopped grass or clover, with occasionally a head of lettuce or cabbage, will be a great benefit. Buckwheat is good to promote the increase of eggs, but it does not add to their richness. The yolk becomes pale, and if much of this grain is used the eggs are not desirable for pastry, and are unfit for some kinds of confectionery.

Oatmeal and Indian meal mixed and scalded add both to the production and quality of the eggs, but care must be taken not to feed too liberally, or the increase of fat will check the production of eggs.—(*American Pet Stock Bulletin*.)

### A CARRIER PIGEON CAUGHT AT SEA.

CAPT. HOLLIES, of the German ship *Duseberg*, lying at Commercial Wharf, Fell's Point, has on board a Carrier Pigeon which was caught at sea, the ship being on the voyage from Europe for Baltimore. When ten days outside the British Channel, and seven hundred miles from the nearest land, on an afternoon, the captain's attention was attracted to the Pigeon flying near the ship, seemingly quite exhausted. Some food was placed on the deck near the cabin, when the Pigeon came on board and ate greedily. At nightfall it nestled in the shrouds far up on the mainmast, and was taken prisoner by the captain himself. The bird is of the pure Carrier Pigeon breed, with rainbow-hued plumage and a muscular development of body and wings not known to the more common varieties. Beneath the left wing, on one of the large feathers, are imprinted in very plain characters the words, "Du Siège de Paris" (The Siege of Paris).

The letters were evidently put on with a stencil and brush and are one-third of an inch in length. It is possible that this was one of the many Carrier Pigeons employed by the French to take flying trips with packets of information outside the walls of Paris during the memorable siege of that city by the German army. But it is not probable that, becoming lost, it has in all the years since been a fugitive over the land and sea, seeking an abiding place. Capt. Hollies thinks it may have been turned loose from a French mail steamship out on the ocean and started back to Paris, but, becoming tired and hungry, sought food and rest on the *Duseberg*. The captain holds it by right of capture, and prizes his pet more highly than did its French owner, for he will not part with it. The words stamped on the wing may have been placed there during the siege of Paris. All government Carrier Pigeons have a stamp of some kind, and this may have been one of them.

### LIGURIAN BEES.

"A YOUNG APRIAN" wishes some bee-keeper "would give us his experience of the comparative honey-collecting capacities of the pure Ligurians and the common black bees this season, as it would be especially valuable and interesting just now. If it is true that the Ligurian bees collect a third more honey than the common bees in season like this when my bees (the ordinary black bees) have not collected more than enough to keep the hives from losing in weight since the middle of June, we

**PIGEONS.**  
CARRIERS.—1. W. Kimber, Walsall. 2. H. Yardley. 3. B. Hudson, Driffield.  
POULTRY.—1. J. Pratt, Hampton-in-Arden, Birmingham. 2. J. Stiles, Jun., Epsom, Surrey. 3. G. Desjardins, Driffield. Ac. H. Yardley.  
TUMBLERS.—1 and 2. H. Yardley. 3. J. Pease, Burton-on-Trent.  
DRABONES.—1. H. Yardley. 2 and 3. R. Woods, Mansfield.  
ANTHUS.—1 and 2. H. Yardley. 3. W. Morris, Derby.  
FAVORITES.—1 and 2. J. F. Loveridge, Newark. 3. H. Yardley.  
ANY OTHER VARIETY.—1 and 2. H. Yardley. 3. B. Hudson, Driffield.

**CAGE BIRDS.**  
BULGARIANS.—1. T. Moore, Thringstone, Leicester. 2. H. Davies, Wolveshampton.  
NORWICH.—Olive Yellow.—1. Brown & Dickinson, Leicester. 2. A. Upton, Derby. Equal 2. C. J. Salt, Stapen Hill. Olive Buff.—1 and 2. Ac. A. Upton. 3. W. Bowyer, Leek.  
NORWICH.—Variegated Yellow, or Buff.—1. J. Watson, Burton-on-Trent. 2. A. Curtis, Burton-on-Trent. Ac. W. Bowyer. 3. J. Torr, Derby. Crested, any colour.—1. A. Upton. 2 and 3. C. J. Salt. Ac. W. Bowyer.  
GUTHAM.—1. T. Newbold, Burton-on-Trent. 2 and 3. C. J. Salt.  
LIZARDS.—Gold or Silver-spangled.—1 and 2. A. Bunting, Derby.  
MULES.—any variety.—1 and 2. B. Bunting. Equal 3. A. Curtis. Ac. J. Baxton, Derby.  
GOLDFINCH.—1 and 2. A. Curtis. Ac. H. Davies.  
BUTTER.—1. P. Naeckigall, Burton-on-Trent. 2. J. Lacy. Ac. T. Peck, Burton-on-Trent.

**RABBITS.**  
LOP-EARED.—1 and 2. T. Schofield, jun., Chesham. 3. T. H. Jones, Banbury. Ac. J. Mason, Burton-on-Trent.  
ANGORA.—1 and 2. H. Swinman, Felford, York. 3. B. Hudson. Ac. W. Kimber, Burton.  
HIMALAYAN.—1. C. G. Mason, Southdale. 2. E. A. Bolander, Penzance. 3. J. Tabbutt, Northampton.  
SILVER-GRAY.—1. T. Schofield, jun. 2 and 3. J. Quick, Seymour Place, London.  
3. B. Greaves, Chesham. Ac. J. H. Watkins, Epsom.  
ANY VARIETY.—1. W. H. Grove, Rival. 2. Mrs. H. Pickworth, Spalding. 3 and 4. B. Greaves. Ac. T. Schofield, jun.

**CATS.**  
TORTOISE-SHELL OR TORTOISE-SHELL-AND-WHITE.—1. O. Graves, Epsom. 2. E. J. Johnson, Burton-on-Trent. 3. E. Vincent, Burton-on-Trent.  
TABBY.—1. C. A. Sherwin. 2. O. Nichols, Lichfield. 3. O. Brown, Burton-on-Trent. Ac. W. T. Stedden, Stapenhill.  
LOSS BLANK.—1. T. Weightman, Warren Wood, Hatfield. 2. Miss G.

might reasonably assume that by replacing them with Ligurians we should still have a fair surplus of honey to take in spite of the bad honey harvest."

This is a very natural inquiry on the part of a young apiarian, and we put his question in full with the hope that some of the readers of the *Journal of Horticulture* will kindly favour us with their experience during the present year. An old and experienced apiarian in this locality bought in early spring a strong stock of pure Ligurians with an imported queen. The possession of this stock of pure Ligurians seemed to give him an increase of pleasure and enthusiasm amongst his bees. We were invited to see his new friends, and during the summer months—indeed from their arrival to the present time—we have taken considerable interest in them. They have been narrowly watched by the gentleman and myself with a view to ascertain if they possess any superiority whatever. If they possess any superior qualities we have both failed to discover them. They have not bred more than common bees; they have not gone to the fields earlier in the mornings, nor worked later at nights. When inclement weather kept the common bees at home the Ligurians stayed at home too—very wisely so. No more work has been done by Ligurians, no superiority has been manifested. Most of the stocks of the owner lost weight during the summer; none lost more than the Ligurians.—A. PATTENAW.

### INDIAN HONEY AND WAX.

In a visit to the new Indian Museum at South Kensington I found an interesting corner filled with bee products, and very curious it was to find such a surprising difference in the appearance of both honey and wax to that of European production. Commencing with the honey (which of course I was not allowed to taste), none could compare in colour with moderately good English honey; the nearest approach to it was that from Lohardanga, and the produce of the orange flowers of Bengal. Then we find Coorg exhibiting some dark and dirty-looking stuff; Ava dark brown honey from wild bees, and hill honey quite black, like the very blackest of treacle. It is worthy of remark that most of this honey, especially the darkest, was uncrystallised. Under the same conditions of storage our superior article would have been solid.

Turning to the wax, not a single example exhibited the bright orange colour of good beeswax. The sample from Pegu was of a fair white, and nearly rivalled by that from Bangoon. Travancore's was grey. From the Indian Archipelago came several samples, varying in colour from light to dark chocolate. Others, described as Jungle and Orissa wax, were of a dirty mottled black and white; and Raepore rivalled the honey of the hills, being quite black. One jar's contents was denominated "wax oil," whatever this may be I know not.

Altogether I do not think India would be a successful competitor in either honey or wax at the next Crystal Palace Show. JOHN HUNTER, *Eaton Bisc, Basing.*

### BEEES ON THE MOORS.

To-day (August 28th), I have been visiting my bees on the moors. At the beginning of this month I sent thirty-two hives there; many of them at that time were without any stores, and exceedingly light in the hand. Twenty pounds of sugar were given to them the first ten days after they went to keep the bees alive, the weather being unfavourable. On the 18th or 14th the weather became favourable for honey-gathering, and since then till to-day some of the best hives have gained 40 lbs. in weight each, some 80 lbs, and some 20 lbs. My first swarm weighs 82 lbs.; and my neighbour Mr. Thorpe, whose bees are at the same place, has two swarms weighing 78 lbs. and 70 lbs. respectively. These are the best amongst ours, and if the weather continue favourable for another week they will probably rise to above 100 lbs. each.

In examining some of the hives internally to-day, we could not avoid wondering at the marvellously large yield of honey from the heather in so short a time. The bees and combs seemed to be cumbered with honey—every open cell had some in it—the honey sparkled from the cells amongst the brood in the centres of the hives, and on the crowns and outside combs the bees were storing it away, and sealing it up as fast as they could. But evidently the outdoor workers have been giving the indoor workers too much to do. The cessation of honey-gathering for twenty-four hours would set at liberty more hands for indoor work. In such a time of honey-gathering a day of rain is not a day of rest, but a day of preparation for sunshine and more labour. What industry!—A. PATTENAW.

THE CANADA POULTRY JOURNAL will be published on the 15th of each month, beginning with September, 1876. It will contain twenty pages, two columns on each page; printed on good white

paper, and bound with a coloured cover, at the low price of \$1 per annum, in advance, postage paid.

### OUR LETTER BOX.

**POULTRY LAYING SOFT EGGS (A.).**—As the season is now advanced, and the birds are moulting, separate your two hens from their mates, and perhaps next year they may lay all right. From what you say of their feed and freedom as to flight, there can be no improvement made in any way.

**BURN A HOLLOW TREE (A Young Apiarian).**—By chiselling all the holes and cracks in the tree you may speedily destroy the bees with the fumes of sulphur. Melt some brimstone in a plumber's lead pan, and dip some cotton rag in it; then close all openings in the tree and set fire to the rag below the bees. Powder burnt in the cavity of the tree, or shot from a gun in it, will kill every bee.

**WORKING BEES KILLING OUR ANOTHER (W. M.).**—There must be planks going on among your bees. Some are stinging and have no doubt attacked some more prosperous hive. Shut-up the attacked hive early in the morning for a day, opening towards evening, but taking care to give ventilation. Feed all your weak hives liberally.

**VERMIN ON BOW (G. M., Salisbury).**—Wash her with a strong infusion of tobacco in water, and the next day with soap.

### METHEOLOGICAL OBSERVATIONS.

CARDEN SQUARE, LONDON.

Lat. 51° 38' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.				Rain.
1876.	Baromet. at 10 A.M. and sea level.	Hygromet- er.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.		
		Dry.	Wet.			Max.	Min.	In sun.	On grass	
August	Inches.	Deg.	Deg.		Deg.	Deg.	Deg.	Deg.	In.	
We. 25	30.000	62.5	61.5	S.	62.5	75.5	63.4	115.5	0.1	
Th. 26	29.999	65.1	61.5	S.E.	62.5	74.5	62.4	115.5	0.4	
Fr. 27	30.172	64.3	59.0	N.W.	60.5	74.7	64.9	121.5	0.2	
Sat. 28	30.088	63.0	57.5	S.E.	61.5	75.5	65.5	125.5	0.24	
Sun. 29	30.910	61.5	57.5	N.W.	61.0	75.5	65.0	125.5	—	
Mon. 30	30.008	61.4	57.9	W.	60.5	75.5	65.0	125.5	—	
Tu. 31	30.045	63.5	55.1	W.	61.5	75.5	65.5	125.5	—	
Means	30.082	63.5	58.5		60.5	74.5	64.1	124.1	0.24	

### REMARKS.

25th.—A bright pleasant day; rather windy and cool towards night.  
26th.—Windy in the night; somewhat dull all day, but not unpleasantly so.  
27th.—A very fine day throughout; much cooler towards night.  
28th.—Slight haze in the morning, less in the middle of the day; rain commenced at 5 P.M., and continued all night.  
29th.—Fine early, fair but not fine during the rest of the day, and cloudy night.  
30th.—Heavy at 8 A.M., but soon cleared off; a very pleasant day from 10 A.M., but rather cool.  
31st.—Another very pleasant day; bright all day.  
A very pleasant week—very bright, but by no means hot. The mean temperature at 9 A.M. was slightly below that of the week previous; the mean maximum 9° below it; but the mean minimum in air was the same as last week; and the mean minimum on grass 0.4 above it.—G. J. SYMONS.

### COVENT GARDEN MARKET.—September 1.

PRICES of all kinds of fruit have a downward tendency and no prospect of an alteration. Outdoor Peaches and Nectarines have made their appearance, but are generally small and much punctured by wasps and bees. Several very handsome Cayenne Pines from St. Michael's have arrived this week, but fetched bad prices, there being no demand for heavy fruit.

### FRUIT.

	s. d.	s. d.	s. d.	s. d.	s. d.
Apples.....	1	0	1	0	1
Apricots.....	1	0	1	0	1
Cherries.....	1	0	1	0	1
Chestnuts.....	1	0	1	0	1
Currants.....	1	0	1	0	1
Black.....	1	0	1	0	1
Figs.....	1	0	1	0	1
Grapes.....	1	0	1	0	1
Guavas.....	1	0	1	0	1
Gooseberries.....	1	0	1	0	1
Grapes, hothouse.....	1	0	1	0	1
Lemons.....	1	0	1	0	1
Melons.....	1	0	1	0	1
Mulberries.....	1	0	1	0	1
Nectarines.....	1	0	1	0	1
Oranges.....	1	0	1	0	1
Peaches.....	1	0	1	0	1
Pears, kitchen.....	1	0	1	0	1
Plums.....	1	0	1	0	1
Pine Apples.....	1	0	1	0	1
Quinces.....	1	0	1	0	1
Raspberries.....	1	0	1	0	1
Strawberries.....	1	0	1	0	1
Walnuts.....	1	0	1	0	1

### VEGETABLES.

	s. d.	s. d.	s. d.	s. d.	s. d.
Artichokes.....	1	0	1	0	1
Asparagus.....	1	0	1	0	1
French.....	1	0	1	0	1
Beans, Kidney.....	1	0	1	0	1
Brood.....	1	0	1	0	1
Beet, Red.....	1	0	1	0	1
Broccoli.....	1	0	1	0	1
Brussels sprouts.....	1	0	1	0	1
Cabbage.....	1	0	1	0	1
Carrots.....	1	0	1	0	1
Capicums.....	1	0	1	0	1
Cauliflowers.....	1	0	1	0	1
Celery.....	1	0	1	0	1
Coleworts.....	1	0	1	0	1
Cucumbers.....	1	0	1	0	1
Pickling.....	1	0	1	0	1
Endive.....	1	0	1	0	1
Fennel.....	1	0	1	0	1
Garlic.....	1	0	1	0	1
Herbs.....	1	0	1	0	1
Horseradish.....	1	0	1	0	1
Leeks.....	1	0	1	0	1
Lettuce.....	1	0	1	0	1
Mushrooms.....	1	0	1	0	1
Mustard & Cress.....	1	0	1	0	1
Onions.....	1	0	1	0	1
Parsley.....	1	0	1	0	1
Parsnips.....	1	0	1	0	1
Potatoes.....	1	0	1	0	1
Potatoes.....	1	0	1	0	1
Radishes.....	1	0	1	0	1
Rhubarb.....	1	0	1	0	1
Salsify.....	1	0	1	0	1
Scorzonera.....	1	0	1	0	1
Squash.....	1	0	1	0	1
Shallots.....	1	0	1	0	1
Spinach.....	1	0	1	0	1
Tomatoes.....	1	0	1	0	1
Turnips.....	1	0	1	0	1
Vegetable Marrows.....	1	0	1	0	1

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	SEPTEMBER 9—15, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
9	Tu	Crystal Palace Show closes.	69.1	48.1	58.6	27	af 5	28	af 6	11	af 4	38	af 10	10	2	46
10	F	Kilmarnock Show.	69.7	45.5	57.6	28	5	28	6	52	4	11	11	11	8	7
11	S		68.7	47.0	57.8	30	5	28	6	23	5	morn.	12	8	27	254
12	Sun	16 SUNDAY AFTER TRINITY.	61.1	44.8	57.0	33	5	21	6	48	5	59	0	18	8	48
13	M		68.4	45.7	57.0	33	5	18	6	0	6	21	2	14	4	9
14	Tu		67.0	46.1	56.5	35	5	16	6	18	6	44	8	15	4	30
15	W	Edinburgh Great International Fruit Show commences. Burghley Park Show.	67.5	45.9	56.7	38	5	14	6	25	6	8	5	●	4	51

From observations taken near London during forty-three years, the average day temperature of the week is 67.8°; and its night temperature 46.1°.

## CARNATIONS AND PICOTEEES.



THE same wet weather that had spoilt much hay was also greatly against our Carnation blooms. Buds had to be carefully watched and protected in good time, and such as were not, soon had the outer petals rotted as they rose from the pod. He who would grow a florist's flower must needs have a genuine love for it, and love can always take pains.

Carnations and Picotees are not the least troublesome of florist flowers, but there are so many careful and hearty growers that, weather notwithstanding, we had a very good show at the National. It is impossible to fix such a date as shall suit all members of a large florist society scattered over a wide area. We can be national in name, sympathies, and numbers, but never so in one general exhibition. Climate inexorably divides us into north and south; and in the northern counties even subdivides us. So, in the proposals for date of next year's show, taking Yorkshire opinion only as showing how they differ, there was the range of a whole fortnight given in. The first week in August would be a very safe time and suit a large breadth of district; and I am speaking without any partiality towards my own, because my Carnations and Picotees are never at their best till the third week in August, so hopelessly late that I gave my vote—perhaps to spite them—for the earliest date—August 4. The latest proposed was August 18, and the date finally arranged for the Show of 1876 is August 11. Had this year's Exhibition been held a week earlier there was a wide belief that greater competition and better flowers would have been produced. We should then have seen, what has never yet been accomplished, a stand of twenty-four staged by one exhibitor, and the whole of them his own seedlings. As it was, twenty-two out of Mr. Simonite's twenty-four were his seedlings, but his bloom was at its best when I saw it ten days before the National. The judging in the leading class was not easy work. In several stands the twelve Carnations did not support their companion twelve Picotees, or *vice versa*. The Carnations in Mr. Bower's stand were bright blooms, full of life, but his Picotees were by no means equal to them, or to some in lower places. Mr. Simonite's Picotees were splendid in all great properties of the Picotee, but his Carnations were unable to back them up, through being past their best.

No one has such fair and honest reason to be proud of his work with seedling Carnations and Picotees as my friend Mr. Simonite of fiery awful Sheffield. It was almost a new wonder of the world to see how for the Royal visit the other day that red-hot town cooled down, how her one stern industry of steel and iron was hushed and laid aside, and her great smoke passed away till the air in Sheffield was almost as bright and pure as the breath of country villages. The whole place was changed, and largely by the influence of flowers, many of which, and plants also, were expressly brought from continental

gardens. It was a sudden marvel, but it is a standing wonder how a florist's garden can exist in the scorched black air of every-day Sheffield, and how flowers of such tender texture as the Auricula, Carnation, and Picotee can be grown in wonderful condition and beauty, and not only that, but also seeded, and led on. Without one sweet natural advantage in air, light, aspect, or soil have Ben Simonite and his father grown florist flowers for many years. It is a great struggle, only to be carried on with a complete armoury of simple, ingenious, and quaint contrivances for keeping every plant and bloom from deadly winds and poisoned smoke and the inky mixture of Sheffield rain.

These Sheffield Carnations and Picotees when known will be invaluable as illustrating and helping to fix the properties of these flowers: perhaps especially in Picotees. Pods are full of shapely petals that come down in their places and form a flower that barely needs a touch of dressing. Petals are of truly marvellous breadth, fine substance, kindly tempered and flaky, lying in beautiful form round the flower, and broad to the very centre of the pod. Another grand point attained is perfect smoothness on the edge as if "engine-turned." This great property of the Picotee is exquisitely tested and proved in the Sheffield light edges by the thin unbroken line of the colouring. It is the true and coveted "wire edge," the one perfect standard of marking in a light-edged Picotee. The wire edge is a finished excellence that cannot co-exist with the slightest roughness of petal edge, as every indentation there would eat into and break the "wire." Another high property now attained is perfect purity in the light and heavy reds. They have long had a flush or pinky tinge in the white ground of the petals, and no colour looks well upon an impure white.

Though dressing is legitimate in the Carnation and Picotee, yet it is no small virtue for a flower to "come down" without it, and to have few or no waste petals. We shall come to that, and indeed there are flowers that have; but at present growers of the older kinds must, if exhibitors, learn to be dressers. It should be reckoned as part of the necessary knowledge of the flower, and you certainly cannot make the best of your flowers, and they will not do themselves justice without it.

There is no trickery in fair dressing. It is much as simple and reasonable as brushing your own hair. You certainly cannot make the best of yourself without that dressing. Carnation petals either in getting the wrong way out of their green bed, or in being disarranged by the wind, get laid one upon another and lumped together. Dressing is to bring them each to light, and arrange them so that each may show its form and marking. The flowers are placed on cards to bring into sight their full circumference. Petals self-coloured and of malformations, known as "strap" and "finger" petals, may be drawn out, but no correct petals may be inserted. They could be, and even a new pod can be put upon a flower in place of a split one. Perhaps after these dark revelations I had better say I do not myself know how it is done, but it has been. It must be a delicate feat, almost as wonder-

ful as an attempt would be to put a wooden head upon a pair of human shoulders that had their proper "pod" split!

The question is put to me what the rule signifies at the National that a "mutilated" flower is disqualified. I cannot say much for the word here, except as an accepted technicality; but I know very well what it means. It means that though you may dress your Carnations and Picotees and pull anything bad out of them, you may not gum anything good into or upon them.—F. D. HOKNER, *Kirkby Malzeard, Ripon.*

### ESTIMATE OF STRAWBERRIES.

"C. P. P." (page 150) requests of the readers of our Journal their experience with regard to new Strawberries raised by Dr. Roden and Dr. Nicaise. Of the former we have Enochantress, Sir John Falstaff, Early Crimson Pine, and the Countess, all first-rate sorts, which cannot fail to give general satisfaction when more widely known. For my part they stand on the top of a choice collection. Of Dr. Nicaise's last seedlings we have Maria Nicaise, Auguste Nicaise, Berthe Montjoie, Duc de Magenta and Mad. Nicaise, which I consider the cream of the whole lot; they are all very large, handsome, and of fine flavour, besides being of healthy vigorous growth and great fertility.

Comte de Zahn (in Mrs. Nicholson's catalogue Comte de Zane) ought to be Comte de Flandres, an old Belgian sort; it is indeed an enormous bearer, but the plant rather too tender with ranky foliage to ripen its mass of fruit to the last. The quality is but poor and the fruit very soft, for which reason I discarded it many years ago.

During the past season we have seen of what little use it is to grow soft Strawberries, such as Marguerite, Brown's Wonder, and a host of others, which when nearly ripe were but a mass of decayed matter; whilst La Constante, Sir Joseph Paxton, Unser Fritz, Cockseomb, Sir John Falstaff, Sabreur, the Countess, Duke of Edinburgh, Souvenir de Kieff, and Dr. Hogg endured a four-days drenching rain in July quite unhurt.

Princess of Wales (Knight) is very early and good, but I find it in some seasons a bad settler.

La Grosse Sucrée (De Jonghe) is all what Mr. W. Leval says of it, page 182. In the Royal Gardens at Frogmore it is likewise much prized. I have had it in perfection in both light sandy and strong loamy soil.—FERDINAND GLOEDE, *Eppendorf, Hamburg.*

### PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 1.

COLLECTIONS of plants have long been on the wane, though in some large establishments, and even in some of moderate pretensions, collections of some tribes of plants are aimed at, but in many instances, and I may say a majority, selections and not collections are the order of the day. It may be that where collections are aimed at many plants of no great attractiveness either in foliage or flower must be included; and as, from the rapidity of introductions from abroad and the no less rapid multiplication of varieties at home, these would occupy more space and entail greater cost than can be allotted to and expended upon them, selection becomes a matter of necessity rather than choice.

In the cultivation of plants some are given to a great expenditure of means, and bestow care upon the curiously beautiful, and so grow Orchids and Pitcher-plants and other curiosities; others delight in elegant, graceful, finely-divided foliage plants, and so cultivate Ferns. Some like stately forms, combining majesty with elegance and grace, and these grow Palms; others see most beauty in form and colour, beauty of outline and distinct markings, these cultivate florist flowers; and there are others, a growing majority, who set most value upon that which is chaste, pure, delicate, bright, fine in form, profuse in bloom, persistent also on the plant as well as enduring in a cut state, and if fragrance be added to these qualities, are the gems most sought after by proprietors of gardens of all grades.

Even the cottager with not a yard of land outside that he can call his own, garnishes his windows with plants, and though showy plants may be present in greater number, place is found for a representative of those emitting perfume. Now, this taste is by far the most prevalent of all others in the liking for flowers; and though some may yet linger over hobbies, or be led captive by the rare, curious, stately, or majestic forms of vegetable life, there are those, and it is difficult, and I think

wrong not to say all, have such a liking for flowers as to grow or have grown for them, the purest, brightest, and sweetest. The most profuse and continuous-flowering, the most beautiful in form or colour, whether of flower or foliage, are selected and grown in gardens, and by artificial means to supply a want of flowers and sprays for cutting, for the taste is so strong that nothing short of the presence of them in the places where leisure is passed, or friends entertained, will satisfy.

The demand for cut flowers and sprays of elegant, graceful, and finely divided parts (or with distinct markings), of foliage for a setting and relief of the bright hues of the flowers is ever increasing. This increase in the demand for cut flowers and plants for decoration has doubled itself within the past ten years, and quadrupled itself during the past thirty. This rapid development of the taste prompting the demand, we can only conclude, has been fostered and given by the increased establishment of horticultural societies in most towns and very many villages. Though we must admit the claims of horticultural societies to the foremost place in advancing the taste for horticulture, and its adoption as a relaxation from life's turmoil by the masses, much must be claimed for the press in giving instructions in culture, and in bringing before the distant as well as near the new introductions which are added to horticultural wealth by the enterprise of collector or the skill of hybridists.

I will proceed to notice some plants which are suitable for affording sprays and cut flowers in a future communication.—G. ASKEW.

### OLLA PODRIDA—A CONTINENTAL TOUR.—No. 8.

WE did not stay long enough in Turin to inspect all the public gardens and squares there, as we were anxious to press on to Venice, staying for two nights in Milan on our way. Milan is a very different town to Turin, for whereas in Turin all the streets, as I said in my last, run at right angles to each other in a way which would thoroughly suit the American taste (in fact a Yankee, who was a fellow-voyager with us from Aix-les-Bains to Turin, said he felt quite at home there). Milan, on the contrary, seems to be of much older date, and hardly any of the streets are either parallel or at right angles to each other. The whole town is surrounded with a line of fortifications or ramparts, with twelve gates. The line of fortifications is planted all the way with a double row of trees, either Limes, Horse Chestnuts, or Plane trees, with a broad road or drive running through them. This forms a pleasant and a shady drive, which is a favourite place of resort for the Milanese; though here, too, as in other towns, fashion reigns supreme, and only a short part of this road forms the fashionable drive—a piece just outside the public gardens called the Bastione de Porta Venezia. This forms the Venetian Rotten Row, or Route de Roi; though why so small a part of this drive should be used it is difficult to say, except that it is rather wider and more raised than the rest. It is, however, far too short, as it is not much more than a quarter of a mile long, and carriages have perpetually to turn, as the only piece which is used as the fashionable drive and promenade is between the Porto Venezia and the Porto Principe Umberto which leads to the Central Railway station. The Milanese, however, do not care about taking many turns on the Bastione, as the line of carriages soon comes to a standstill outside the public garden near to the bridge which leads to the Café Restaurant. The ground on which the Café Restaurant—a sort of Rotunda Kiosk—is built is raised on the same level as the Bastione de Porta Venezia, and crosses over one of the principal roads or paths of the public garden by a bridge made of rough tufa blocks. All the sides of the mound or raised ground on which the Café stands is chiefly ornamented with rockwork principally formed of tufa, and all the pathways leading down to the ordinary garden level are also made to pass through rockwork. This is not well arranged, as a rule, for plants to grow in, and the Ferns do not seem to thrive, except in some aspects. The gardens are nicely laid out as far as the walks are concerned, and there is a stream of water passing through it in which aquatic plants grow freely, and there are a few ornamental wildfowl there which seem much at home; among which were some pelicans and swans.

What struck me much was the almost utter absence of flowering plants; the only bed I saw in flower was a bed of Monthly Roses, and the only bed of coloured foliage was one of purple Orach (Spinach). Some of the flowering shrubs were, however, very fine to compensate, especially the Mag-

nolias, which were just coming into flower, and fine bushes of *Deutzia crenata flore-pleno*, and of the large-flowering white *Syringa*, &c. Some of the Pines and Firs were doing well, as *Cupressus Lambertiana*, *Lawsoniana*, &c. The grass, as is so often the case in public gardens in hot countries, was utterly spoilt from not being cut; and there was less excuse for this, as there was plenty of water at hand to keep the grass fresh. There were a few nice plants of *Arundo donax variegata* just beginning to throw up new shoots alongside the watercourses, which promised in time to be very ornamental. On the whole, these public gardens, with their avenues of trees and shady walks, form a pleasant lounge for the people of Milan on a hot summer's evening; but it seemed to me a pity that a little more care and attention was not paid to them, and that too much was left to a naturally fine soil and climate. I should much like to see one of the quarters of the garden planted with subtropical plants, as *Cannas*, *Ricinus*, *Maize*, *Abutilon*, &c., mixed with some of our choicer flowering plants, as I think the climate and soil is such that nearly all the denizens of our stoves, as *Allamandas*, *Clerodendrons*, &c., would thrive there under proper treatment during the summer months.

The only other public garden we went to see at Milan was the *Orto Botanico*, at the back of the *Brera Gallery*. This is a closely walled-in space in the middle of the streets of the city, and which we found after taking a great number of turns along corridors, after leaving the *Brera Gallery*, with finger-posts pointing to the *Orto Botanico*. The Curator received us in very fluent Italian, much of which I fear was lost on us. He was very proud of a very fine specimen of Purple Beech, which certainly was the finest tree of its kind I had ever seen, the bole measuring 12 or 13 feet in circumference, and the stem straight. The head of the tree was tall, and the branches very regularly and symmetrically arranged. He assured us repeatedly it was the finest in any public garden, and that several curators from other botanical gardens had expressed their admiration of it. There was not very much else worthy of note except a very fine specimen of *Magnolia*, one of the finest to be seen anywhere. I forget the name of the species, but it was the glossy-leaved one, which is grown in many places of England against our walls. There was also a very good specimen of the *Paulownia imperialis*, with very fine broad leaves; and of the *Catalpa* and *Bignonia*. The garden on the whole was too confined and divided—as are many botanical gardens—into a number of small parallelogram beds, each filled with their different genera of plants, amongst which was a bed with different kinds of wild English *Geraniums*. I was also amused to see a number of our English-raised *Coleus* seedlings in the conservatory. I forgot to say that an attempt to grow a few of the Pine and Fir tribes had signally failed, one or two *Wellingtonias* eking out a miserable existence. On the whole I might say of Milan that while the avenues of trees were well cared for, and many of the flowering shrubs, especially the *Magnolias*, seemed to flourish, there was a great lack of flowers, I hardly saw any in shops or in windows; too much seems to be left to nature. While driving along the ramparts we overlooked several of the gardens at the back of some of the rows of houses, in which the Vines trained from tree to tree seemed most flourishing; but in these gardens we hardly saw a flower.—C. P. P.

### TAKING-UP AND STORING POTATOES.

In the *Journal* of August 26th "*YORKSHIREMAN*" gives some advice as to the pulling the haulm from Potatoes to prevent disease, but he leaves the matter in such an imperfect state that many might be induced to try the experiment and spoil the crop. He says, "It is a pretty well ascertained fact that if the haulm is pulled away from the rows soon enough—that is, before they are in any way affected by the murrain, the crop itself is safe." I take no objection to this statement, only that it ought to have been supplemented by another well-known fact—viz., that if the tops are pulled away from the Potatoes before the latter are ripe the tubers are rendered useless for culinary purposes. They are what housewives call "sad," and no amount of skilful cooking or boiling can render them fit for the table. Thus it will be seen that the experiment is a very critical one, and the chances of failure are great, so much so that I know many growers who have tried it say that they prefer to allow their crops to run the chances of the disease sooner than resort to haulm-pulling. "*YORKSHIREMAN*" tells us he has experimented considerably in the matter, and he would render a great service if he could favour your

readers with further particulars as to when, how, and at what stage of growth the haulms can be pulled away without affecting the flavour and value of the tubers.—BETA.

### WHY PRUNE SO MUCH?

I REMEMBER years ago when the question, in a well-known periodical, was asked, "Why shave?" produced in the public mind a wonderful sensation. I wish to produce a sensation by asking, Why prune so much?

Of late something has been said in our *Journal* about spurring Morello Cherry trees. From my own experience I am satisfied that none need hesitate about adopting the plan, for I have practised it in years gone by on standards, pyramids, bush, and wall trees, and, to say the truth, I never thought the subject worth naming. I, however, will not quarrel with those who cling to the young-wood system with its hundreds of nails and shreds in a full-grown and well-managed Morello Cherry tree.

Forty years ago, when under-gardener in a nobleman's establishment, when sent to work, no matter what the weather, I was expected to remain the time, and I have stood by the walls during winter when I have not known whether I had hands or none. I resolved then, if it fell to my lot to have men under me, that the curse of me poor man's child should rest on my head on that account, and I am thankful to say I have kept the resolve. I know, too, that a better state of things exists now, and with care very much of winter nailing can, and in many places is, dispensed with. For my own part I am satisfied with the spur, and for convenience sake I intend to follow on, but I do not mean to say that I shall not have young wood in my trees as well.

While on the subject of spurs I may say that I have tried to have Peaches and Nectarines partly on spurs, and if I had a sufficient number of trees I should not hesitate to give the plan a further trial, for I am quite satisfied with the partial result. A while ago, in company with one of our craft, I was advocating the spur, and while descending over a splendid Peach tree indoors (for my friend is well up in the fruit department), I put the question, How about spurring the Peach tree? "Why, man," said he, "I durst not attempt it." Having my eye on two or three splendid natural spurs likely to have eight or ten blooms on each, I pointed to them, and said, "Of course you will dispense with these, then." He confessed that he liked them too well for that.

Do we not sometimes err in following too fine a line in the matter of routine? If some of our scientific and practical friends would give us their experience on this matter it might be of service. I do not see why anyone should hold back any information or suggestion, for we are in need of a constant interchange of ideas, and I look on our *Journal* as a valuable medium for the conveyance of such to its readers.—ONWARD.

**MR. PEARSON'S GOLDEN QUEEN GRAPE.**—We hear that this is better than ever this season, though carrying a crop of eighteen bunches. It certainly has been well tried by the raiser. It bore five bunches as a pot Vine in 1872, thirteen in 1873 when it received a first-class certificate, fifteen in 1874 when it was again shown before the Fruit Committee, and now carries eighteen bunches, which are better even than those of last year. Mr. Pearson has offered a prize of £5 for the best single bunch to be shown in the autumn of 1877, and £2 and £1 for second and third prizes; the time to be fixed after consultation with the Fruit Committee of the Royal Horticultural Society.

### NEW EARLY AND LATE STRAWBERRIES.

No. 1.

I now supplement my former article of some two years ago, with further notes and illustrations of such seedling Strawberries as have seemed to me by extended observation to be worthy of a place in the *Journal*; and, thanks to the engraver's art, I am enabled to give faithful representations of the average sizes and most predominant forms of the respective fruits.

The season just past has, like that of 1873, been highly favourable to the growth and development of fine specimens of Strawberries in general, but I have been especially careful to avoid exaggeration, and to place before the artist such moderate examples of fruit as any amateur with ordinary care and attention to the necessary means of culture, and having a

fair Strawberry soil, may reproduce in abundance in his own garden.

I commenced my observations on Strawberry culture several years ago, by saying that we had already plenty of mid-season varieties, such as *Carolina Superba*, *British Queen*, *La Constante*, and some others which could not easily be excelled, and that it was chiefly in the direction of better early and late sorts that the efforts of the raiser of new fruits should be directed. My chief object, therefore, in this article is to place before the public the complete list of early Strawberries which I have been for some years past engaged in raising and perfecting, and also such late sorts as, in addition to those already figured in this Journal, I have as yet been able to pronounce an opinion upon.

The first in order of the early sorts is *Alpha* (fig. 42). The fruit of this seedling is large and large medium, some of the

before *Early Prolific*, and this year it commenced ripening June 4th, coming-in with *Duke of Edinburgh* and *Early Prolific*, and being shortly followed by *Hundredfold* and *Amy Robart*.

*Duke of Edinburgh* (fig. 43), is a fine large fruit partaking of the joint characters of *La Constante* and *British Queen*. Foliage dark green, and the habit of the plant quite distinct from all other sorts. The fruit is mostly obovate in shape, like the illustration, and very handsome. Colour darkish crimson; seeds numerous and decidedly prominent; flesh creamy white; flavour piquant, vinous, and excellent; calyx small for size of fruit. It is also one of the best early forcers, and only requires to be better known to be universally cultivated under glass in place of Keane's Seedling and other large-growing leafy sorts. This and the following variety were distributed some five years ago, but are now introduced here in order to make the batch of early sorts complete, and also to give the benefit of faithful illustrations for the guidance of those who may not yet possess them.

*Early Prolific* (fig. 44), is becoming too well known to need description, but not having been previously illustrated, it is introduced for that purpose. The plant is of elegant habit of growth, with bright green foliage, distinctly dentate. Fruit large, and large medium. The woodcut depicts a fair medium

Fig. 42.—Alpha.

Fig. 44.—Early Prolific.

fruits being larger, some smaller than the illustration, according to the soil, climate, and skill displayed in the treatment. Colour bright glossy red; seeds numerous and rather prominent; flesh solid, pinky red throughout, melting and juicy, with a delicious high flavour. Season decidedly early, coming in with *Black Prince*, but owing to its lighter colour ripens up quicker than that variety, and is far superior in size and flavour. It is also a good and early forcer. Like *Black Prince* the plant is of rather slender habit of growth during the first year, but it increases in strength and fertility and in the size of its fruit for several years, and should not, therefore, be too frequently renewed.

Fig. 45.—Early Crimson Pine.

size. In some soils it is decidedly larger. Colour bright glossy vermillion, becoming a little darker when very ripe; seeds slightly embedded; flesh white, firm, and juicy, with a delicious refreshing flavour peculiar to this variety alone. Like the *Duke of Edinburgh* it is decidedly early, and is fast becoming accepted by practical gardeners as the very best early forcing variety we possess. The above three sorts should not be frequently renewed. They should be planted in well-prepared ground and allowed to remain several years, every other plant being removed the second or third year if the plants become too crowded. The two latter are now going on here for the sixth year, and I have no intention to disturb them so long as they keep increasing in the size and quantity of their fruits. If originally well done, plenty of room and autumnal surface-manuring are the chief essentials to insure good crops of handsome fruit.

*Early Crimson Pine* (fig. 45). This variety was figured in the Journal some two years ago, and I cannot speak too highly in its favour. The woodcut at that time may have been thought by some persons an exaggeration for so early a fruit, but I am happy to say that my garden has teemed the last two years with still handsomer specimens, and this autumn I intend planting all vacant ground with it. The fruit began to colour this last season towards the end of May, and here and there large fruits were ripe on the 4th June. Fruit handsome bright crimson colour; seeds rather prominent; flesh dullish white and sometimes pink, very juicy, with a rich piquant Pine flavour. The fruit is much like *British Queen*, observes similar shapes as it ripens, and has an equally rich Pine flavour, but colours up better all over the fruit. It has the advantage also of coming-in some three weeks before that excellent variety. Re-introduced here to make the set complete.

*Hundredfold* (fig. 46), likewise ripens very early, and is very

Fig. 43.—Duke of Edinburgh.

The next five sorts so rapidly follow each other that it is difficult to establish a correct order of succession, which, as in the case of many other fruits, varies with the different seasons; but as a rule, *Duke of Edinburgh* and *Early Prolific* follow *Alpha*. *Early Crimson Pine*, however, began to ripen in 1874



good either for the dessert or for an early preserving kind on account of its fine colour and immense cropping qualities. The fruit is large medium, and large, of bright red colour, with thickly-seattered rather prominent seeds; flesh solid, pale red through, juicy, with a brisk refreshing flavour, when fully ripe having a trace of the Hautbois. The plant is of vigorous healthy habit and bears well at once, but the second

as we learn from several correspondents, all of whom agree that it is earlier than Hale's Early, which has so far proved our best early Peach.

### ALEXANDRA PALACE. GREAT INTERNATIONAL FRUIT SHOW.

SEPTEMBER 2ND.

ALTHOUGH this was both a great and good Show, we thought it scarcely commensurate with the efforts that had been made, with the amount offered in prizes, and with its imposing name. There is, however, a suspicion, if not something more, that neither flowers nor fruit will ever look so good as they really are in this lofty and highly embellished hall. The high colouring of the edifice, the almost tiring blue of the ceiling, the scarlet flags and the gilded monarchs, are not the fittest associations for showing to advantage the natural colours of the earth's products. In an edifice less ornate and unbroken by elaborate columns a collection of fruit such as this would have been more striking in its effect; the force of the picture was in a measure lost by the extensive and artistic frame.

It is not possible to give a full and satisfactory report of this Exhibition owing to the resuscitation of the almost obsolete system of exhibiting under numbers, and the delay necessarily caused in first attaching the names and subsequently the prize cards. When this work is not completed until after the admission of the public it is impossible to take due note of the collections. The time lost in attaching the awards was the cause of complaint on the part of exhibitors and spectators. A simple and more expeditious system is generally adopted at most great exhibitions.

The Exhibition was divided into eleven divisions and eighty classes, most of which were filled, although in some there was but little competition. First in the schedule, and first also in point of interest, were the collections of fruit. For sixteen sorts of fruits Mr. Coleman, gardener to Earl Somers, won with a highly-finished collection, consisting of Black Hamburgh, Muscat of Alexandria, Lady Downe's, and Waltham Seedling Grapes, all of which were fine, but the berries of the latter were slightly rusted; two Pines, two Melons, Golden Gem being especially noteworthy; Bellegarde Peaches, Elruge Nectarines, Kirke's and Jefferson's Plums, Williams's Bon Chrétien Pears, Morello Cherries, and Moorpark Apricots. The second award went to Mr. Wildsmith, gardener to Viscount Eversley, and the third to Mr. Goodacre, gardener to Lord Harrington. These were very superior collections. In the collections of twelve sorts excluding Pines some capital dishes were staged, the principal honours falling to Mr. Gough, Little Malvern Court; Mr. Rushmore, Tondring Hall, Stoke; and Mr. Irving, gardener to the Duke of Hamilton, in the order named. The collections from which both Pines and Grapes were excluded were also very good; Mr. Cox, gardener to Earl Beauchamp, winning with Peaches, Nectarines, Plums, Melons, Figs, Apples, Pears, Cherries, and Apricots, all of which were good. The second prize falling to Mr. Chard, gardener to Sir F. Bathurst.

PINES were not numerous in the classes, but an imposing contribution of twelve Smooth Cayennes from Mr. Wilson, gardener to Earl Fortescue, were especially worthy of notice; they were sixteen months from suckers, and averaged 6 lbs. each, and an extra prize was deservedly awarded. The other principal prizetakers were Mr. Jones, Windsor; Mr. Wilson, Mr. Plummer, Cannon Hill Park; Mr. Harris, Singleton Gardens; and Mr. Chamberlain.

GRAPES, especially the black kinds, were very good, many of the Muscats not being highly finished. For eight varieties, one bunch of each, Mr. Upjohn, Worsley Hall, was placed first, Messrs. Lane & Son second, and Mr. Sallon third. The sorts were Gros Colman, good in bunch, berry, and colour; Muscat of Alexandria, not quite ripe; Black Alicante, splendid; Black Hamburgh, Buckland Sweetwater, Lady Downe's, Tynningham Muscat, and Muscat Hamburgh. For four varieties Mr. Coleman and Mr. Bones were the only exhibitors, and stood in the order named. Mr. Coleman's fruit was very fine in all properties, but Waltham Cross was again slightly rusted; this is evidently a distinct and fine acquisition amongst late white Grapes. For the best three bunches of Black Hamburgh there were ten exhibitors, and Mr. Coleman was again to the front with grand bunches splendidly coloured and without spot or blemish, followed by Mr. Wildsmith with well-finished bunches, Mr. Allward, and Mr. Upjohn. For Muscat Hamburgs, which were generally not well coloured, Messrs. Lane & Son, Mr. Bloxham, and Mr. J. Lane stood in the order named. For Madresfield Court Mr. Cox won with fairly good examples, followed by Mr. Wattam. For Black Alicante Mr. Farrance and Mr. Edmonds stood in the order named; the first-prize bunches especially being admirable examples of culture. For Lady Downe's Mr. Coleman won with medium bunches, but fine, clear, jet black berries; he was followed by Mr. Eap and Mr. Wildsmith. For Muscat of Alexandria Messrs. Lane & Son won with immense bunches, but not highly finished berries,

Fig. 46.—Hundredfold.

Fig. 47.—Amy Robart.

and following years, as its name implies, it turns off an immense quantity of fruit.

*Amy Robart* (fig. 47). This is a delicious large medium and occasionally large fruit, having a flavour quite *sui generis*. Colour bright palish red; seed numerous and slightly depressed; flesh solid, pinky white, exceedingly melting and juicy, with a rich piquant flavour quite new. The plant is healthy and a good grower. It is an enormous bearer and early, coming in with Early Prolific and Duke of Edinburgh, and lasting during the greater part of the Strawberry season.

*Scarlet Pine* (fig. 48).—This is a great favourite and not easily beaten in the high quality of its fruit. It is unfortunately not a very large fruit, being chiefly medium and large medium, but when very well grown tolerably large. The woodcut presents a fair medium specimen. Colour a beautiful

Fig. 48.—Scarlet Pine.

darkish scarlet; flesh pinky white, solid, and juicy, with an exquisite high piquant flavour scarcely exceeded by any known variety. Seeds numerous and prominent, it therefore packs and travels to a distance better than most other sorts. It also stands wet weather better than almost any other variety. In season it forms a connecting link between the early and mid-season crops, and is altogether a most *recherché* sort for the dessert. The plant is a first-rate grower and very hardy. All the foregoing sorts are uniformly great bearers.—W. RODEN, M.A., M.D., Morningside, Kidderminster.

[Portraits of late varieties next week.—Eds.]

EARLY BEATRICE PEACH IN AMERICA.—This, says the "Gardener's Monthly," has fruited in various parts of the Union

followed by Mr. Edmonds and Mr. Akehurst. In the single-bunch classes the Black Hamburgs were excellent, as also were the Alicantes and Lady Downes, the Muscats lacking finish, and the solitary bunch of Golden Champion being only a moderate specimen of its kind. The chief prizewinners in this section were Messrs. Coleman, Wildsmith, Irving, Upjohn, Edmonds, and Messrs. Lane & Son.

In the classes for flavour the qualities in blacks stood—Black and Muscat Hamburgs, and Madresfield Court, the growers being Mr. Cox, Mr. Coleman, and Mr. Thomas, Whetstone; and in whites Mr. Wattam, Mr. Stevens, and Mr. Bones won with Duchess of Buccleuch, Muscat of Alexandria, and Canon Hall Muscat respectively. The entries were numerous, but the bunches were generally poor. For the heaviest black bunches Mr. Goodacre won with a 6½ lb. bunch of Black Hamburg with poor berries; and for whites Mr. Edmonds was first with Syrian weighing 5½ lbs. The classes both for weight and flavour were not satisfactory, the big bunches not being fit to place on any gentleman's table; and as to flavour there was a poor return for the prizes offered, and which, indeed, were hardly needed to elicit the well-proved fact that well-grown examples of the staple varieties are always good in quality.

For the 12-lb. baskets there was good competition of first-class produce, Mr. Coleman winning in blacks with Black Hamburg, followed by Mr. Akehurst and Mr. Thomas. For whites Mr. Bashford won with Muscat of Alexandria, followed by Mr. Akehurst and Messrs. H. Lane & Son. In Class C, for two bunches of specified varieties, there was but little competition, except in the Black Hamburg class. The fruit generally was not of superior merit, except the finish of Mr. Luckhurst's Muscats, which was very noticeable. The principal winners were Messrs. Luckhurst, Mackie, Heard, Crane, and Le Sueur.

Messrs. Lane & Son had capital examples of pot Vines heavily laden with fruit. Of the Grapes, of which about five hundred bunches were exhibited, the blacks, especially the Hamburgs and Alicantes, were splendid, but the whites were generally deficient in finish. The baskets were an admirable display, and the "large bunch" and "best flavour" classes closely approached failure.

The division for foreign exhibitors only, was not a success, except as regards the Pears, and of these good specimens were sent. The Pine classes were empty, and the majority of the Grapes were indifferent. Muscat "Bedre" was the best, and Gros Colman was fairly good, but it is clear that our foreign friends cannot teach us any good lessons in Grape-growing, yet the fruit was generally set up in good condition, while many of the English Grapes had been injured in packing and transit. Disfigurement in this respect was very noticeable. In this division some good collections of Apples were sent, but not equal to the best examples of home culture. The winners were in Grapes Mr. Le Sueur, and in Pears and Apples Mr. Bashford and Mr. Pluck.

In Division E, which embraced Peaches, Nectarines, Plums, Pears, Apples, and Figs, a really splendid spread of fruit resulted. In the classes for twelve and six Peaches upwards of thirty dishes were staged, the majority possessing great merit. For twelve fruits Mr. Coleman had the first award for Crawford's Early, fine in size and colour; Mr. Jones being second with Bellegarde, a model dish; Mr. Grant following with an excellent dish of Chancellor. For six fruits the first honours went to Mr. Cox with Violette Hâtive, followed by Mr. Wildsmith with Royal George, and Mr. Smith, Bentham Gardens, with Noblesse. A beautiful dish of Dr. Hogg was exhibited by Mr. Luckhurst. Nectarines were also an admirable display, twenty-two dishes being staged with scarcely an indifferent fruit in the entire collection. In the class for twelve fruits Mr. Coleman was placed first with fine and highly-coloured fruits of Pitmaston Orange, Mr. Luckhurst following with admirable examples of Lord Napier; and in the class for six Mr. McClure won with splendid fruit of Violette Hâtive, followed by Mr. Akehurst with Elruge.

Of Figs eight very fine dishes competed, the first and second awards falling to Mr. Chisholm and Mr. Chard, for Brunswicks. For Plums, twelve of any sort, there was a great display of nearly forty dishes, Mr. Stephens and Mr. Bridgeman winning with Green Gage and Jefferson's; Mr. Lane had also an extra award for Jefferson's. This was a very successful class, the whole of the fruit being of fine size and finish.

PEARS AND APPLES.—Of these there was an admirable exhibition. For twelve Pears, two of each, there were sixteen competitors; Mr. Jones, Mr. Bashford, and Mr. Pluck taking the honours with splendid examples of Beurré Clairgeon, General Todleben, Doyenné du Comice, Beurré Bachelier, Beurré d'Amanlis, &c. For six fruits of Jargonelle Mr. Palling, Mr. Goodacre, and Mr. Gough had the awards; for six of any other sort Mr. Upjohn was first with Fondante d'Automne, followed by Mr. Noorman, and Mr. Jones, with Williams's Bon Chrétien; and for six heaviest Pears Mr. Bashford won with Belle de Jersey, weighing 6½ lbs.

Apples were extensively exhibited, but several dishes were incorrectly named. For a collection of dessert kinds there were

sixteen competitors, Mr. Pluck, Messrs. G. & J. Lane and Mr. Holder standing in the order named, and for twelve ripe dessert kinds there were eleven entries, Mr. Webb winning. In the class for six sorts of baking Apples there was a grand display, twenty-six competing, Mr. Cocks and Mr. Pluck being the most successful. The finest sorts were Warner's King, Lord Suffield, Kentish Fillbasket, Alfriston, Dutch Codlin, Blenheim Pippin, and Reinet du Canada. For the six heaviest Apples Mr. Pluck won with London Pippins, weighing 4 lbs. 13 ozs., followed by Mr. Chisholm with Warner's King, weighing 4 lbs. 12½ ozs.

MELONS were generally small. In the Green-fleshed section twelve fruits were exhibited, the best being Golden Gem, Worcester Hybrid, and Golden Perfection, from Mr. Tyler, Bishop Stortford; Mr. Gough, and Mr. Chaff respectively. In the Scarlet-fleshed section eight fruits were staged, the best being Red's Mottled, Hero of Bath, and Scarlet Gem, from Mr. Ellis, George Warren; Mr. Wildsmith, and Mr. Ross, in the order named. Mr. Coleman was the most successful exhibitor of fruit, winning nine first and two second prizes; his produce, which was very superior, being secured by Messrs. Webber and Co., Covent Garden.

VEGETABLES.—These were exhibited in collections, which were fairly good, but more remarkable for size than for quality and superior finish. Cauliflowers were all overgrown. Celery was common, and Parsnips were 4 feet in length. Beans, Peas, Potatoes, Turnips, Carrots, Onions, and Tomatoes were in excellent condition. For sixteen varieties Mr. Cox, Madresfield, and Mr. Holder, Prestonbury, were equal firsts, followed by Mr. Turk and Mr. Rushmore. In the collection of six varieties the winners were Mr. Smith, Mr. Bloxham, and Mr. Crane. In Salads two attractive collections were exhibited by Mr. Smith, Bentham Gardens, and Mr. Holder, who received first and second awards respectively.

MISCELLANEOUS.—In this class were interesting contributions. Messrs. Deard & Co. had their hot-water apparatus; Mr. Voice, improved Cucumber frames; and Mr. Webb and Mr. Cocks seedling Apples, for which certificates of merit were awarded. Fruit-bearing Apple trees lifted from the ground, and exhibited in baskets, by Messrs. Paul & Son, Cheshunt, were a prominent feature. They comprised over fifty sorts, and the trees from 8 to 6 feet in height were heavily laden with fruit. Messrs. T. Rivers & Son also exhibited fruit trees in variety, and an extensive collection of fruits, including branches of Plums of extreme fruitfulness. Mr. William Paul had a great collection of fruits the resources of the Waltham Cross Nurseries. Mr. Webb, Reading, staged a very fine collection of Nuts in twenty-eight varieties. Mr. Solomon, gardener to D. Flooke, Esq., sent a gigantic Pumpkin, nearly 7 feet in circumference. Messrs. Brown, Stamford, exhibited splendid specimens of Peasegood's Nonsuch Apple, which somewhat resembles Cellini highly magnified. Mr. Yeates had metallic labels; Mr. Matthews, pottery, &c.; Messrs. Balderson & Knox, insect killers; Mr. Kaye, skeleton leaves; and Mr. Laxton, new double Pelargoniums Guiding Star, Illuminator, and Emily Laxton.

The Judges of the several classes were most painstaking in their duties, and their awards gave general satisfaction.

#### TABLE DECORATIONS.

It was wise to add to the grand schedule for fruit one for table decorations, for they are always interesting to a large number of people, and as no other flowers were exhibited they gave variety to the stages. I was anxious to see what would be the result in a new locality, whether the old exhibitors would appear on the scene and new ones be added to them. Both classes came forward, and if the results were not very striking as to novelty, neither was there anything very offensive to the taste. In all I could suggest improvements, although, perhaps, had I to do them myself I should miserably fail. There were four tables in the first class, which was described as a "table 10 feet 6 inches long by 5 feet wide, completely laid out for twelve persons, and so arranged as to show the best means of utilising fruit and flowers in its adornment." It was evident that one of the exhibitors could not have read this, for no one could imagine that a plate, a fish knife, and a large silver fork was all that was required for the use of a dinner table. The first prize was awarded to Mr. Soder, gardener to O. Hambury, Esq. This was arranged with three centrepieces; the centre one consisting of a base, middle tray, and long glass top. This was very elegantly and lightly arranged, the top with sprays of Celosia and Grass; the central tray with some charming trusses of a Cape Geranium, some bells of Agapanthus, and Adiantum; the base with blooms of Vallota purpurea and Eucharis amazonica intermixed with Adiantum. The side vases were similar without the central tray, the top filled with Cornflower and Grass: the Cornflower was rather jammed down into the glass and spoiled its lightness. The bases were arranged with Water Lily, Vallota, and Adiantum. The fruit was arranged in glass baskets, and the table fairly treated with glass, &c., although I think some ruby glasses would have been an improvement, as there was not overmuch colour in either flowers or fruit.

The second prize, awarded to Mr. G. B. Wood, Hornsey Rise, was a fairly arranged table, although the flower arrangement was somewhat heavy, the base of the central piece being filled with Gardenias and Geraniums. The fruit on this table was very good and well arranged, but altogether it was greatly inferior to the first prize. The third prize was awarded to Miss Money, Alexandra Palace. In this there was great heaviness; the central piece completely hid those sitting opposite to one another, the glass itself being heavy and also heavily crowded with flowers. The quantity of fruit was enormous. There were four dishes piled up of Plums, two enormous dishes of Grapes, Peaches, &c., at each end; and I can only imagine that the previous *menu* was so scanty that the guests were expected to make up in fruit.

In the class for three stands arranged with flowers for the dinner table there were some very good entries. The first prize was awarded to Mr. J. Hudson, Champion Hill. The central stand was composed of a Palm, with *Eucharis* and *Yucca* arranged round the base; the sides two March stands, with *Grasses*, *Agapanthus*, *Lapageria* and *Lapageria alba*, and *Anthurium Scherzerianum*. The second went to Mr. Soder for three stands, rather too tall, but very elegant; *Grasses* at the top, with *Salvia patens*. There was also a want of proportion between the size of the base and the length of the stands. The third was won by Mr. Chard, gardener to Sir F. Bathurst, with a set of three stands with glass cornucopias: it was pretty, but too finicking. An extra award was made to Mrs. Stuart, 84, Seven Sisters Road.

In the class for two pieces the first went to Mr. W. L. Buxter for two vases, dissimilar, but either of which would be much appreciated by anyone for their drawing room. They were most elegantly arranged with *Russelia juncea*, *Climber Fern*, *Bouvardias*, and the pretty *Forget-me-not* *Impatiens Elizabeth*. These were very tasteful and pretty vases. The second (Mr. J. S. Chard), were two similar vases with one central piece and three smaller ones at side; the flowers at the base were rather too large and heavy. The third (Mr. J. Hudson) were two dissimilar vases; one a glass basket, charmingly arranged *Roses*, and an upright vase arranged with *Tritonia* and *Oncidium flexuosum*, an admirable flower for such purposes. Extra awards were made to Miss McKenzie and Miss Hyder.

The bouquets call for no particular remark. With one or two exceptions they had the too-prevailing fault of lumpiness. The plant cases, in which Ferns were the plants used, were not numerous; the best was exhibited by Messrs. Dick Radcliffe and Co., who had the first award, followed by Messrs. Marshall and Co. and Mr. Sinclair. For wedding bouquets the awards went to Mr. Studd, Heaton Mersey, Miss Money, and Mr. Bonsey; and for three opera bouquets to Miss Money, Mr. Bonsey, and Mr. Sinclair in the order named.—D., Deal.

## CRYSTAL PALACE AUTUMN FRUIT SHOW.

SEPTEMBER 7TH.

This Exhibition was only of moderate extent, and the fruit, except in the hardy classes, was not of superior quality.

In the collections of fruit Mr. Bannerman, gardener to Lord Bagot, secured first honours with an admirable display, consisting of a splendid Queen Pine, large Trebbiano and Black Prince Grapes, a good Marquis of Ailsa Melon, handsome Barrington Peaches, capital Brown Turkey Figs, and Pitmaston Orange Nectarines. Mr. Goodacre, Elvaston Castle, had the second place with a good and well-ripened Cayenne Pine, Grapes in excellent condition, and a good Melon, but the Peaches and Nectarines were rather small. Mr. J. Lane, gardener to Major-General Pyche, Pyrge Park, Romford, had the third place with a very handsome Pine, a large Melon, and good Peaches, Nectarines, and Figs, the Grapes being the weak point in this collection. Mr. Pitts, gardener to Mrs. Mayo, Riverdale, Dorking, had the fourth award.

**PINES.**—These were not extensive, yet some very nice fruits were staged. For the best Queen Mr. Fillery, gardener to S. D. Sassoon, Esq., had the premier award for a plump well-coloured fruit. Mr. Plummer, gardener to B. Thornton, Esq., being placed second with a nice tapering fruit; Mr. Goodacre having the third award for a good but somewhat over-ripe fruit. For the best fruit of any other variety Mr. G. T. Miles, Wycombe Abbey, won with a good unnamed fruit weighing 5½ lbs., followed by Mr. Plummer with a capital Smooth Cayenne; and Mr. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, for a medium-sized Charlotte Rothschild.

**GRAPES.**—These classes were characterised by useful table fruit of medium size. Messrs. Lane & Son were placed first for Black Hamburg with well-shouldered bunches, good in berry and colour; followed by Mr. Crane, The Gardens, Logeshill, Chislehurst, and Mr. Alexander, gardener to R. Burgess, Esq., Sutton, Surrey. There were seven competitors. For Muscat of Alexandria Messrs. Lane & Son were again pre-eminent with large bunches which had done duty in "another place;" Mr. Clarke, gardener to J. Raines, Esq., Nightingale Lane, Clapham Common, having the second award for nice shapely bunches

Mr. Ansell, Castletower, Wimbledon Park, being placed third with larger bunches, but the fruit was not fully ripe. For three bunches of any white variety except Muscat of Alexandria Messrs. Lane & Son again won with good examples of Foster's White Seedling, followed in the order named by Mr. Hall with Buckland Sweetwater, and Mr. Alexander with Golden Champaign; the latter were fine in the berry, but were somewhat spotted. For black Grapes, Black Hamburgs excluded, Mr. Bannerman won with three medium-sized bunches of Gros Colman with splendid berries, black and spotless. Messrs. Lane and Son had the second place with Muscat Hamburg; Mr. Jones, gardener to E. Purser, Esq., Carshalton, being third with the same variety. For the "heaviest" bunch Mr. Crane won with a respectable bunch of Black Hamburg weighing 4 lbs. 9 ozs.; Mr. Goodacre being second with a bunch marked 5½ lbs., but the berries had not been thinned, and it was practically worthless; Mr. Taylor, gardener to S. Johnstone, Esq., Hampstead Heath, having the third prize. This class was disappointing.

**PEACHES.**—Of these a very fine display was staged by thirty-eight competitors, Mr. Bannerman winning with a dish of Barrington, splendid in size and colour; Mr. Douglas being second with a handsome dish of Exquisite, having a decided Apricot tinge; Mr. Harris, gardener to C. L. Norman, Esq., Oakley, Kent, having the third place with a dish of Royal George. Extra second prizes were awarded to Mr. Allen, gardener to S. Owens, Esq., Woodlands, Beckenham, for a beautiful dish of Princess of Wales, nearly white; Mr. Ansell with Gros Mignonne; and Mr. Harper, The Elms, Epsom.

**NECTARINES.**—This was also a fine display, comprising twenty-six dishes. Mr. Tillery, Welbeck, had the premier place with the best dish of Victoria which has this year been exhibited. The fruit were in perfect colour, and upwards of 2½ inches in diameter; Mr. Jordan, gardener to J. Bunstead, Esq., Wimbledon, had the second place with Violette Hâtive; Mr. Moorman, gardener to the Misses Christie, Kingston-on-Thames, being third with Elruge. Extra second prizes were awarded to Mr. Holliday, gardener to J. Morris, Esq., Castle Hill, Bletchingley, with Rivers' Pine Apple; and Mr. Corp, gardener to S. A. Steel, Esq., Littlecot, Streatham Common, with Elruge.

**FIGS.**—In this class there were five competitors, Mr. Chisholm, gardener to R. C. Taylor, Esq., Boughton Place, Maidstone, winning with very fine Brunsbicks; Mr. Neighbour, gardener to G. Wythes, Esq., Bickley, being second; and Mr. Bannerman third with Brown Turkeys.

**CHERRIES.**—Of this seven dishes competed, and the fruit generally was very good. Mr. Sage, Ashridge Gardens, won with splendid Morellos, followed by Mr. Miles and Mr. Chisholm respectively.

**PLUMS.**—This was a remarkably fine display, there being no less than thirty-eight competitors with three dishes each, taxing to the utmost the discriminatory powers of the Judges. They eventually decided in favour of Mr. Sage, who had Jefferson's and Washingtons in perfect condition, and a fine dish of Kirke's. Mr. Holder, gardener to W. Balston, Esq., Springfield, Maidstone, had the second place with Washington, Jefferson's, and Green Gage; Mr. Jones, Carshalton, being third with Washington, Jefferson's, and Kirke's; and Mr. Douglas fourth with Transparent Gage, Bryanston Gage, and Jefferson's. A finer display of Plums than the above has seldom been seen.

**MELONS.**—Of these twenty-six nice table fruits were staged. In the Green-fleshed section Mr. Harris, Oakley, won with an attractive and finely-flavoured fruit of Beechwood; Mr. Webb, Calcut, being placed second; and Mr. Gadd, Castle Garden, Dorking, third with Golden Perfection. In the Scarlet-fleshed section Mr. Pitts, Riverdale, won with a handsomely-netted fruit of Read's, followed by Mr. Kneller, Malshanger Park, with Victory of Bath, and Mr. Harper with Turner's Scarlet Gem. An extra first prize was given to Mr. Sage, Ashridge, for a highly-flavoured fruit of Colston Basset, white flesh.

**PEARS.**—For three dishes of nine fruits each a very fine display was made by twenty-four competitors, the fruit generally being of very great merit. Mr. Neighbour won with a grand dish of Beurré d'Amanlis, highly-coloured Louise Bonne of Jersey, and splendid Williams's Bon Chrétien; Mr. Sage, Ashridge, following with Williams's Bon Chrétien, Jargonelle, and a splendid dish of Fondante d'Automne; Mr. Longman having the third award with Williams's Bon Chrétien, Louise Bonne of Jersey, and Gratiell. In single dishes for the best-flavoured Pears Mr. Moorman, Mr. Longman, and Mr. Holder stood in the order named, each with Williams's Bon Chrétien.

**APPLES.**—Here was the finest feature of the Exhibition, many grand dishes being staged. For four dishes of nine fruits each Mr. Murrell, gardener to A. R. Allerton, Esq., Prittlewell, Essex, won with noble dishes of Cox's Pomona, Beauty of Waltham, Alexander, and Lord Suffield. Mr. J. R. Swinerton, Swanley, Kent, had the second award with Hawthornden, immense fruit, "Counsellors," Early Marie, and Lord Suffield; and Mr. Haycock, Barham Court, the third place, with Reinette du Canada very fine, Warner's King, Lord Suffield, and Alexander. As

extra award was made to Mr. Jones, Marshaton. There were one hundred dishes of some of the finest fruit ever exhibited. In the Dessert class of four dishes each about the same number competed. Mr. Webb, Calcot, won with Red Astrachan, Red Quarrenden, Early Julien, and Cox's Orange Pippin; Mr. Holder, Springfield, being second with "Jefferson" (Duchess of Oldenburgh), Kerry Pippin, Red Quarrenden, and Cox's Orange Pippin. Mr. J. R. Swinnerton had the third, and Mr. Longman the fourth awards.

In the Miscellaneous class prizes were awarded to Mr. Sleat and Mr. Goodacre for collections of hardy fruits; Mr. Webb for a collection of nuts; and Mr. Lakeman for vegetables; to Mr. Laing, Stanstead Park Nurseries, for a group of admirably-grown decorative plants; Mr. Coppin, Croydon, Roses; Mr. Turner, Dahlias; Messrs. Lane & Son, Grapes; Mr. Solomons, a gigantic Gourd; Mr. W. Paul, three hundred named varieties of Pears and Apples; and Mr. Waterer, Knapp Hill, Cupressus Lawsoniana erecta viridis, in handsome, dense, green columns.

base to tips. Meyerbeer and Norma were grand, and Orphée, Schiller, and Horace Vernet very good. Mr. Douglas exhibited his own seedlings in a great variety of colour, some of the scarlets being very bright.

For six spikes not in commerce, Mr. Kelway, Mr. Coppin, Croydon, and Mr. Douglas had the awards in the order named. In Messrs. Kelway's stand Lord Howard, salmon rose; Queen Mary, blush and purple; and Lord Petre, scarlet and crimson, are grand varieties; and Reginald Pole, Edward Courteney, and Simon Randel are also excellent. The Rev. H. H. Dombrain also exhibited a beautiful seedling resembling Norma. Certificates were awarded for these fine new varieties.

#### CLEVELAND HOUSE, CLAPHAM PARK.—No. 2.

THE RESIDENCE OF S. BALLI, ESQ.

Good gardening, in whatever place it is found, is always

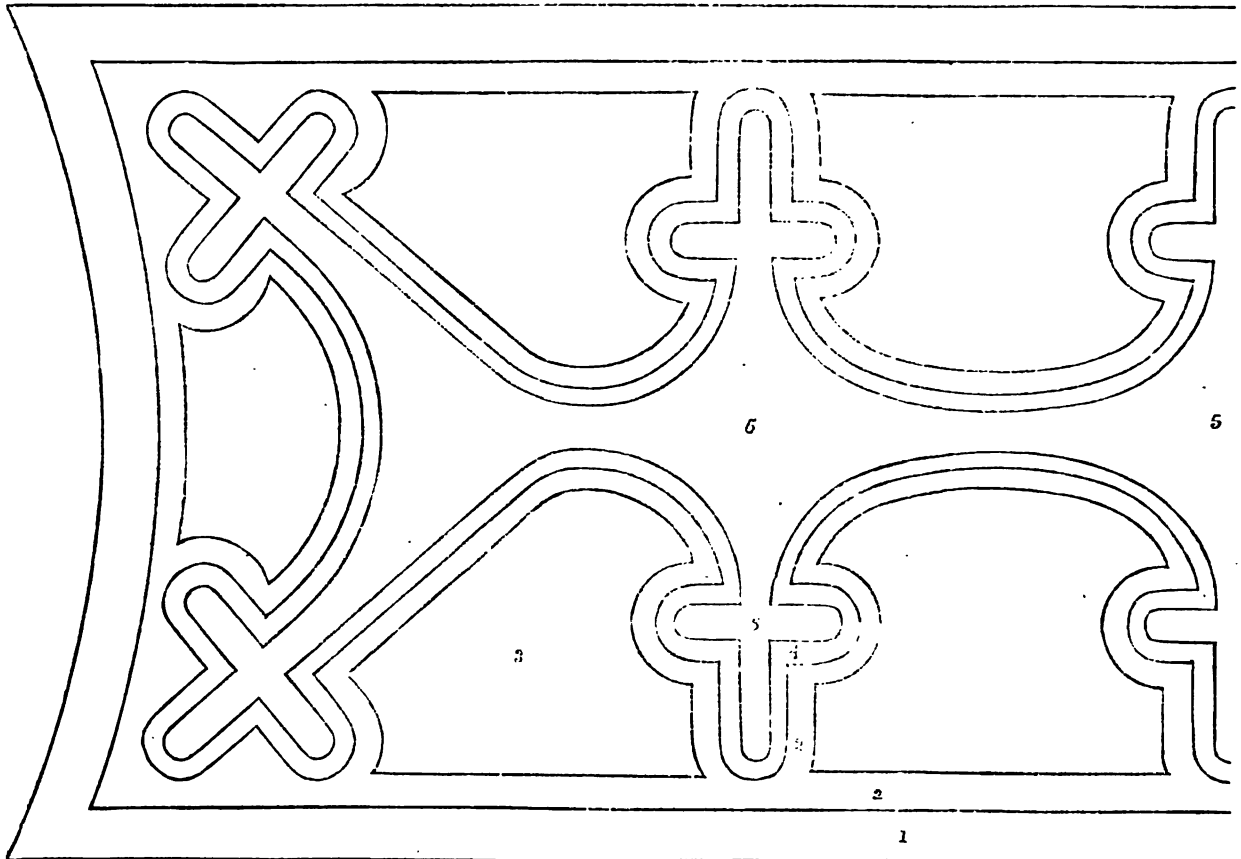


Fig. 49.—PORTION OF CARPET BED AT CLEVELAND HOUSE.

1. *Sempervivum californicum* and *Sedum glaucum*.
2. *Alternanthera paronychioides*.

#### MODE OF PLANTING.

3. *Mesembryanthemum cordifolium* variegatum.
4. *Echeveria secunda glauca*.
5. *Alternanthera amœna*.

Certificates of merit were awarded to Mr. Turner, Slough, for the following Dahlias—Sairey Gamp, Mrs. Standish, Samuel Plimsoil, and Barmaid; and to Mr. Rawlings for Mr. Bennett.

Prizes were also offered for cottagers' Vegetables, of which a creditable display was made. The exhibition was well managed, the judging and awarding of the prizes being effected smoothly, speedily, promptly, and satisfactorily.

**GLADIOLI.**—Of these very fine spikes of the best varieties were exhibited. For thirty-six spikes Messrs. J. Kelway & Son had, as usual, the premier award. The blooms were massive, and the foliage was also good. In the rich colours the best were Saron, Phineus, Orbono, Meyerbeer, Minerva, Pitho, and Horace Vernet. Of the soft scarlets and salmons Pythis, Thunberg, Pionay, Umbro, Galemus, and Rev. H. H. Dombrain splendid. *Roses* and *Lilacs*: Syren, Orphée, Erilius, Petillus, and Culthar. *Lights*: Etandard, Shakespeare, Clymenus, and Eugène Scribe. In this class Mr. Douglas had the third prize with his own seedlings. In the class for twelve spikes the old rivals and old friends, Rev. H. H. Dombrain and Mr. Douglas, again met, Mr. Dombrain taking the lead with spikes expanded almost from

worthy of mention as a just recognition of the skill of a cultivator and as an incentive to others who are aiming at success. In many large establishments high-class gardening is to be seen, and not less true is it that superior examples of taste and skill are exercised in the grounds of villa residences. That this is so at Cleveland House is seen by the sketch which was given last week, where, however, the planting of bed a was inadvertently given under bed c, and vice versa. A further outline is appended of one of the finest and best-arranged borders of flowers to be found in the vicinity of the metropolis. The bank (fig. 50) is 60 yards in length by 8 feet in width, and forms the western boundary to a perfectly-kept lawn. In this border the Coleus in the circles and connecting links is in splendid condition. The bed (fig. 49) is noted as an effective example of carpet bedding, simple in design and easy to carry out, and which shows to advantage by the side of the intricate patterns which are now becoming fashionable. The chief effect of this bed consists in the *Alternantheras* and *Echeverias*, numbered

2, 4, and 5, being distinctly raised above the groundwork of *Mesembryanthemum* No. 3. The figures are on a scale of a quarter of an inch to the foot.

But, as I foreshadowed last week, it is not for the flower garden alone that this place is noteworthy, for there is an example of Vine-growing such as any man may be proud to show to his friends. The vinerias are 60 feet in length, and the canes are of the kind from which first prizes are made. The Vines were planted in June, 1874, and there are a few good Grapes on the nursing canes. It is not much to say, perhaps, that the wood of this season reaches the top of the house, and that it is ripening well, but when on measurement of the first half-dozen rods the circumference of each is found to be 2½ inches, and the joints are many of them within 8 inches apart, we find that bone and sinew preponderates over pulp, and that these Vines are as worthy of honourable mention as are the flower beds. These Vines are planted wholly inside in loam and bones. They are 2 feet apart, with an idea of resting the permanent canes and removing the nurses. But query, Messrs. Douglas, Luckhurst, Abbey, and other experienced cultivators—what will become of the roots of the nurses when their heads are cut away? Will they decay and engender fungus, and will this fungus spread to the living roots and endanger the welfare of the permanent Vines? Many besides Mr. Legg would be glad of a more satisfactory answer to that problem than is as yet authoritatively promulgated. Whether it is preferable to remove the superfluous Vines—the early slaves—or rest every alternate Vine annually, and let all remain to do a share of work? They are 2 feet apart. Think of that and of the fungus liability of dead roots, and give your verdict on the evidence which experience has afforded.

Mr. Legg's plan in producing these substantial and remarkably short-jointed canes has been to reverse the treatment which has so often produced a frothy long-jointed growth—viz., a high temperature in the early stages of the Vine's growth. These were started and grown-on as cool as possible, and not until they had attained substance was heat afforded, and then and now applied for ripening the wood. That is a rational and, as the Vines prove, a

1. *Roburula serrata glauca*.  
2. *Lobelia pumila purpurea*.  
3. *Pyrethrum Golden Feather*.

4. *Scamptium californicum*.  
5. *Alternanthera versicolor*.  
6. *Alternanthera pectinoboloides*.

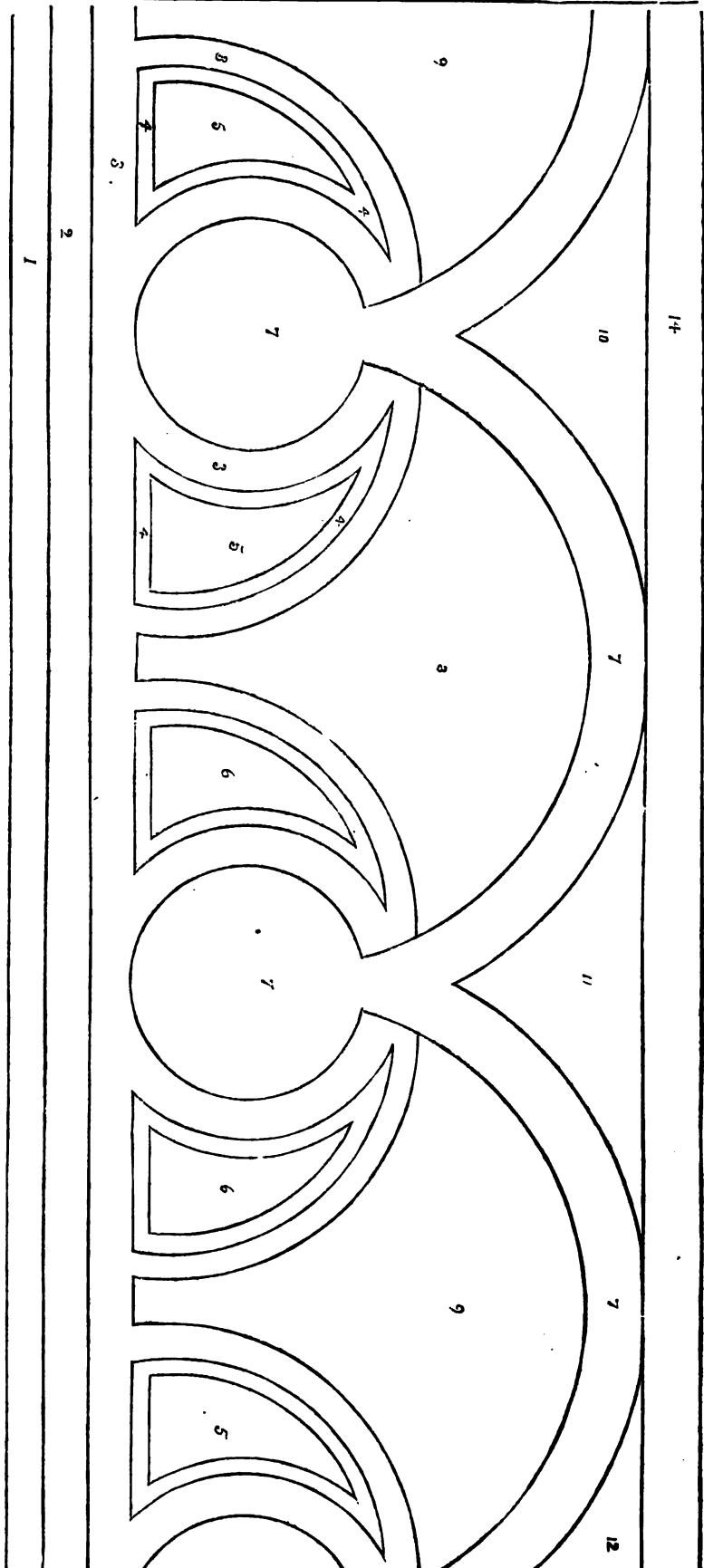
7. *Oleum Verbenacifolium*.  
8. *Polygonum Christie*.  
9. *Polygonum Little David*.

10. *Polygonum Walham Seedling*.  
11. *Oleocarya Golden Prince*.

12. *Polygonum Senation*.  
13. *Centaurea compacta*.

FIG. 50.—FLOWER BORDER AT CLEVELAND HOUSE.

MODE OF PLANTING.



correct mode of treatment, and unless an accident occurs or a mistake is made something more will be heard of these fine Vines. To a majority of gardeners they are as interesting as the beds, and as well worthy a visit. Go and see them, and produce others like them. With that advice I leave the Vines for a "bit of plant-growing."

It is only fair to bear in mind that the plants here are only two years old, and yet these young plants have already won first prizes, not at mere local shows, but in such competition as is met with at the Regent's Park and Crystal Palace. Mr. Legg was also successful in carrying away two of the silver cups offered by Mr. Bull at the Show at South Kensington on May 12th. On inspecting these plants the visitor is struck with their quick growth, perfect health, and absolute cleanliness. They are grown in a spacious, well-heated, span-roofed house, supplemented by a brick pit, also well heated. Amongst the most striking plants are the Crotons. Their size, health, and colour, combined with age, are worthy of note. Croton Wismannii within two years from the cutting is upwards of 4 feet in diameter at the base, and was until recently 7 feet 6 inches in height, but is now shortened, and half-a-hundred cuttings are struck. C. Youngii is of the same age and size, with foliage 18 inches in length; C. undulatum and C. angustifolium are 4 feet through and 5 feet 6 inches in height at seventeen months from cuttings. Croton Johannis struck in December last is 4½ feet high, and fully 3 feet across, with leaves 1½ foot long, and beautifully coloured. These are handsomely furnished plants, with the foliage almost hiding the pots. C. majesticum, C. volutum, and C. spirale are also progressing with equal vigour. The above are a few of the most distinct Crotons, and should have a place in all collections of stove plants. In the same house is Dipladenia Brearleyana, unquestionably the finest of the Dipladenias, which had lately thirty-five blooms open at the same time; last year this plant was in a 3-inch pot. Alocasias, of the same age as the Crotons, are 4 feet through. Dieffenbachia Bausei has six fine stems 4 feet in height, and D. nobilis has a stem 8 inches in diameter with noble foliage; the top of this plant is being struck to form an exhibition plant for next year. In the same vigorous way are Dracenas, Allamandas, Bougainvilleas, &c., cultivated. Nepenthes are also laden with splendid pitchers; and the best of the Palms, including Cocco Weddelliana, Dæmonorops palembanensis, &c., are in admirable condition. Orchids are in the same order of luxuriance, a growth of Dendrobium moschatum, for instance, being 8 feet in length. Mr. Legg is also trying his hand at Heath culture with a healthy and promising collection.

The secret of Mr. Legg's success lies in unchecked supplies of water to the roots of his plants, also in the atmosphere, and a constant use of the sponge. He uses no insect-killers beyond soft soap, and this in the form of a preventive. It is impossible to find plants more clean and healthy than are these. Enough has been said to suggest that this small garden is worthy of a visit. It has been wholly remodelled within the space of two years, and is a laudable example of what can be accomplished by hard work and indomitable perseverance when combined with sound taste. In this little place Mr. Legg has won great success as a gardener, aided, however, not a little by the liberality of his employer, who enjoys his garden, and is willing that others should enjoy it also.

Owner and gardener are alike deserving thanks—the one for his kindness and the other for his skill in making that kindness a treat to the numerous visitors.—W.

### MIGNONETTE FOR SPRING DECORATION.

Few plants are more charming in the early months of spring than well-grown examples of this fragrant and popular flower. It is enjoyable at all times and under every form of culture, from the familiar bed in the summer garden to the fine pyramids of pot-culture which are produced by skilled adepts. But in no form is it more useful than when producing its dense healthy clusters in small pots as used by the decorators of Covent Garden for the adornment of window boxes and other modes of domestic ornamentation. Many are the attempts to produce these healthy pots, and it must be added many are the failures. These failures arise mainly from two causes—viz., growing the plants too closely, whereby they become drawn; or watering them too freely in the winter, when they become diseased and die off. Yet these pots of fragrance are easily producible if the following points of practice are strictly attended to.

The present is the best time to sow the seed for spring blooming, which should be in 48-pots well drained. The soil should consist of equal parts of rufy loam and well-rotted cow dung. Press the soil down rather firmly, and sow the seeds thinly on the surface, and cover them slightly with fine soil. Plunge the pots in a cold frame in ashes within 3 inches of the glass, placing a piece of slate under each pot to prevent the roots from penetrating through the pots. Water rather sparingly till the seed germinates. When the seedlings are large enough to handle thin them out to about twelve plants, after which only allow six to remain, keeping the strongest, after which they should have very little water. Give abundance of air night and day, and leave the lights off altogether on favourable occasions. Discontinue watering from the latter end of November till the latter end of February. This is where the secret of success consists, for if they are watered through the winter they become drawn, and the result is weakly plants and little bloom. Never mind the plants flagging a little, which sometimes they will do when the sun is powerful on them. In March they should be taken out of the plunging material, but still be kept in the frame close to the glass. They will now require liberal supplies of water, and must not be allowed to become dry. As growth progresses place a thin neat stick to each of the plants, which will admit the air amongst them and allow the lateral shoots to become strong. When in full growth give liberal supplies of liquid manure, especially after they have set their bloom.

The points to attend to are firm and rich soil, all the light and air possible during the winter months, little or no water for two months after the plants are fairly established, and abundant supplies when spring growth has fairly commenced. If the pots are plunged in ashes only a little covering on the glass is needful to preserve the plants from frost. By this mode of procedure are the compact and sturdy Covent Garden plants produced.—A. Y.

### DUNDEE HORTICULTURAL SOCIETY'S SHOW.

SINCE the enlarged views and enterprising spirit of the Committee culminated in the magnificent encampment in the Baxter Park in 1867, Dundee has taken the lead in Scottish horticultural shows. Superior displays of fruit may be seen at the Edinburgh and Glasgow Shows, but in flowers and vegetables Dundee stands ahead of these cities. Edinburgh offers £800 in prizes for its international show which comes off shortly; Dundee, in keeping with its enterprise, offers £1000 in prizes at its international, fixed to come off next year.

The Fête, extending over three days, came off in the High School grounds, in the very centre of the town, and was held partly in the High School itself and in three huge marquees. The central one, devoted to flowers, was 800 feet in length by 45 in width, 35 feet high in the centre and 8 feet at the sides. The marquee allotted to fruit measured 100 feet in length by 45 in width, and 35 feet high in the centre, while the marquee for vegetables was of the same dimensions. The entries were as follows—Pot plants, 245; cut flowers, 458; fruit, 450; vegetables, 494; dessert tables, 3. Total, 1640.

A brilliant assemblage of the rank and fashion of the town and neighbourhood were present on Thursday morning at the opening ceremony. The Earl of Airlie made a thoughtful and eloquent address, and formally declared the Exhibition opened. At the dinner in the Royal Hotel, where James Yeaman, Esq., M.P., the President, presided, addresses were delivered by the Earl of Airlie and Lord Kinnaird, Lord Lieutenant of Perthshire, and others. The Fête was formally closed on Saturday evening by Baillie Macdonald, one of the Vice-Presidents, in presence of a large gathering of the visitors.

Notwithstanding the very extensive and unhappy strike which has prevailed for the last six weeks with 12,000 hands idle, and from 80,000 to 40,000 people directly affected, and thousands of others materially affected, and those in work assisting in supporting those on strike, about 14,000 entered the gates, and the total income was about £550.

In flowers the Show was unexampled, and all the plants were in excellent condition. Among the most commanding was a pot of Lillium auratum grown by Mr. James Wilson, gardener to George A. Cox, Esq., Beechwood, consisting of four noble stems from 10 to 11 feet high, carrying a dozen beautiful flowers each. The challenge cup and £5 for best nine stove plants fell to Mr. McMillan, gardener to Joseph Grimond, Esq., Ochet Castle. The local nurserymen—viz., Messrs. Laird & Sinclair and Messrs. John Stewart & Sons, vied with each other in advancing the interests of the Show by sending collections of rare and beautiful plants for exhibition, and competing in every department for prizes with no small degree of success. Nurserymen from a distance were conspicuous by the prizes they gained. Among these were Messrs. Dickson & Co., Waterloo Place, Edinburgh;



Messrs. Robertson & Galloway, Ingram Street, Glasgow; Mr. McPherson, Polmuir, Aberdeen; Messrs. James Cocker & Son, Aberdeen.

Though there was a greater competition the fruit was inferior in quality to that shown last year. Councillor Moncur (ex-Bailie Moncur) was as usual very successful, his gardener, Mr. George Reid, winning no less than seven prizes in Grapes. Mr. Wm. Eddie, gardener to J. F. White, Esq., Castle Huntly, won the first prize for heaviest bunch of Grapes, his bunch weighing 8½ lbs.

Through the effects of the unpropitious spring the vegetables, though abundant, were decidedly inferior. The Parsley of last year would have swamped the greens of this year in bulk. Mr. Peter McArthur, gardener to John Leng, Esq., Kinbrae, Newport (managing proprietor and editor of *Dundee Advertiser*), gained the first prize for a basket of vegetables, ten varieties. Mr. McArthur won other five prizes in vegetables. Mr. D. Ross, gardener to Col. Macdonald, St. Martin's Abbey, who was first last year, came in second; Mr. Johnstone, Ashladie, third.

are figures of various animals cut in Box. Upon a level plot stands an Acanthus (now known as an *Acacia*), so pliant that I had almost said it was flowing; round it is a walk bounded by a dense evergreen hedge cut into different shapes. . . . . There are walks divided in some places by grass plots, in other places by Box trees cut into a thousand shapes, some of which are letters forming my name, and others the name of my gardener (*Topiarius*)."

Wherever they acquired territory the Romans introduced their arts and customs. Their gardening was no exception, and long after they had left our land their style of gardening remained. The earliest records of our extensive gardens show that part of their adornment was "*opere topiario*."

This practice long continued predominant, lingered on despite the preference for landscape gardening, and still lingers. Peacocks and other devices cut in Yew and Box are to be seen in the gardens of many old residences. Not very many years

Fig. 51.—TOPIARY WORK AT ELVASTON CASTLE.

The villagers of Baledganno in the Carse of Gowrie again distinguished themselves by carrying off no less than thirty prizes. The Show was in all respects a great success.

### TOPIARY WORK.

MANY modern mansions are dropped as it were in the middle of a park—the turf comes up to their walls. This we consider very bad taste. The gradation from the architecture to the unadorned ground should be gradual. A terrace, or succession of terraces, succeeded by a lawn studded with flower beds should intervene between the house and the park. We are so far from objecting to the terraces being bordered with mathematically-cut evergreen hedges, that we prefer them in many instances to stone balustrades. The taste for such hedges and other sixteenth-century garden forms is reviving; mazes, herbaceous borders, and old-fashioned flowers are in the ascendant.

With the Romans, one of our teachers in the fine arts, *Topiarius* was an ornamental gardener, and *Topia* the art of cutting shrubs into various forms, and forming other garden decorations. Pliny, in describing his Tuscan villa to his friend Apollinaris, tells that "Before the portico is a terrace adorned with various figures, and bounded by an edging of Box. Below this is a slightly descending gravel walk, on each side of which

since the motto of the order of the Garter—*Honi soit qui mal y pense*, was composed in Box in the garden of New College, Oxford. Such topiary work is still well exemplified in parts of the gardens of Elvaston Castle, as shown in the engraving we publish to-day.

London goes further than we can follow, for he advocates as appropriate to parterres in the *ancient* style figures formed of wirework, with evergreens trained over this, and gives as an illustration a man in a modern beaver hat with his arm round the waist of a female!

### EXTRACTS FROM DR. HOOKER'S REPORT ON THE ROYAL GARDENS AT KEW DURING 1874.

THE number of visitors to the Royal Gardens continues to increase annually, amounting to 669,436 in the past year, which is 15,556 in excess of 1873, the highest number previously known.

**BOTANIC GARDENS.**—In this department the hardy Fernery has been constructed and planted. It occupies a winding path 40 yards long, which has been made in continuation of that which runs along the front of the rockwork. About 560 species of Alpine plants were grown upon it last year. The Ferns are planted on both sides of the path amongst loose stones, which

form a low bank backed by evergreens. For the most part the old world species are on one side, and the new world ones on the other. An edging of Ivy along the path both tends to keep them cool and damp and to collect the dust raised by the feet of visitors, which in hot dry days, when many thousands are in the garden, is most prejudicial to the general health of such tender plants. About 150 species and varieties are planted out, many of them represented by both European and American specimens.

The collection of Liliums has been removed from the south end of the Herbaceous Ground, where they suffered from the intrusion of the roots of trees into soil prepared for them, to the west side of the Ivy collection on the other side of the wall bounding the ground. The collection has been removed and planted in two deep beds of mixed peat and loam with broken bricks, which latter are found to be very advantageous for holding moisture in the light sandy soil of these gardens. The beds are edged with Rhododendron, and bushes of these and Camellias are planted down the centre of each, to provide shade in summer and to protect the young growths from the cutting winds of spring.

A collection of carnivorous plants has been arranged on the table on one side of the Orchid House porch, which it has been necessary to protect from the curiosity of the public by a wire fence.

During the last year practical lessons in various departments of botany and its kindred subjects have been given to the young gardeners with a view of preparing them better for their duties in general, and especially of qualifying them for government and other situations in the colonies and India, where a scientific knowledge of gardening, arboriculture, &c. is required. The lessons are given in the evening after working hours, and embrace the elements of structural, systematic, and physiological botany; of chemistry, physical geography, and meteorology in their application to horticulture; of economic botany, forestry, &c. They are given, some in the young men's library, others in the garden or museum. Attendance is not compulsory, but anyone commencing one of the courses is required to go through with it and take notes, which are written out in books, and these are examined periodically. The courses are short, and some of them are repeated twice or oftener during the year, so as to enable a succession of young gardeners (who cannot well attend to more than one course at a time) to obtain instruction in all or most of the subjects taught.

It should be premised that no young gardeners are taken into the service of the Royal Gardens who have not passed their apprenticeship elsewhere; that they come ostensibly for the purpose of self-improvement, and are expected to remain for two years in the service. They, however, seldom remain more than twelve or eighteen months, the fact of having served at Kew being considered so high a recommendation for curatorships of botanic and other public gardens, and by persons requiring gardeners with a special knowledge of plants, and the demands upon Kew for gardeners to serve in India and the colonies being very frequent.

A large stock of the true Liberian Coffee has been obtained through the kind efforts of Messrs. Irvine & Woodward of Liverpool. This is a larger and perhaps different variety from that received from Cape Coast, and which was mentioned in my last year's report (p. 5). Large quantities of both have been sent to the Coffee-growing British possessions, and have arrived in excellent condition.

Dr. Thwaites states that the Cape Coast Coffee, the safe arrival of which in Ceylon I mentioned in the report of last year, is, notwithstanding that it was immediately attacked by the leaf disease, doing well. He also remarks that "the Cape Coast and Liberian Coffees, although they would seem to differ much as regards size of their respective seeds, yet in the matter of foliage there is great resemblance between them. In this latter respect they differ considerably from the ordinary Coffee plant of Ceylon; their leaves being a good deal larger, more firm in texture, and tapering more gradually to the base."

The disease and insect ravages by which of late years Coffee has been attacked in India, Natal, Ceylon, and other colonies has directed the attention of the Local and Home Government to this important culture, and given rise to a very extensive and onerous correspondence with this establishment. My attention has in consequence been directed—(1), to obtaining accurate reports as to the nature of the disease, of which several are confounded under one common epithet; (2), to recommending measures for the cultivation of Coffee in

colonies once famous for its production where it has been almost abandoned, as well as in others where the cultivation has been scarcely attempted; and (3), to the cultivation of new and improved varieties.

The demand for seed of *Eucalyptus globulus* has continued unabated. I am still unable to endorse the views of those who regard the tree as capable of cultivation in tropical swamps and as a prophylactic against ague and fever. But whilst responding in this sense to the multitudes who write to me on the subject, I have accompanied my answer with a packet of fresh seeds for trial. There is little doubt, however, that in places which are favourable to its growth it will prove a very valuable source of timber of hard quality, and, contrary to the usual habit of hardwooded trees, it is of very rapid growth.

The subject of Cinchona cultivation in the now almost abandoned colony of St. Helena has been again brought under the notice of the Government, owing to the fact of a large proportion of the trees introduced there ten years ago from Kew, and whose culture had been abandoned, having been found after years of neglect to be in a flourishing condition. The suitability of the soil and climate of that island for Cinchona cultivation has now been indisputably proved, and the question of continuing and extending it is one that must depend upon other considerations. The successful introduction of this febrifuge into India, Ceylon, and Jamaica being now accomplished, this subject no longer demands a notice in my report.

The prospect of Ipecacuanha cultivation, which is no less important than that of Cinchona, is far less encouraging. This arises not so much from want of success in establishing and increasing the plant, as from the apparently extremely slow growth of the underground rootstock from which the drug is obtained, and the small yield of even a fully grown plant. Nevertheless, the cultivation must be persevered with. The causes that retard the progress of this valuable herb under cultivation are those that raise the price of it in its native country. Were it a plant that increased rapidly, it would be with difficulty eradicated in the forests which it inhabits.

The plants of the true India-rubber of Para (*Hevea brasiliensis*), which had been taken out to India by Dr. King, Superintendent of the Calcutta Botanic Garden, have safely arrived and have already to some extent been propagated by cuttings. The cultivation of this tree is extremely important, not merely from the valuable quality of the rubber obtained from it, but also in view of the diminished supply from the Indian *Ficus elastica*, which, owing to its epiphytic germination and mode of growth, is not well adapted for cultivation for this purpose, while severe inroads have been made upon it in the forest where it occurs.

## NOTES AND GLEANINGS.

A LOAN has enabled the Royal Horticultural Society to pay not only the prizes they offered in 1875, but those also of 1874. The Society also purposes to renew its PROVINCIAL SHOWS, and that the first shall be held at Liverpool during next June.

SUTTON & SONS' ROYAL BERKSHIRE ROOT SHOW is to take place on 20th November. It is said to be now the largest in the kingdom. £220 are offered in prizes. The prizes for their Champion Swede amount to upwards of £35, and Mangold prizes in the aggregate to upwards of £80. There is the novelty of a special class for roots cultivated with sewage; and prizes for vegetables and Potatoes.

## NOTES ON VILLA AND SUBURBAN GARDENING.

GATHERING AND KEEPING FRUIT.—Some may ask, What has this to do with villa gardening? My answer is that it is one of the most important operations of the season. To take the pains to grow fruit, and neglect the essential points in gathering and keeping it, is like throwing time and labour away. It is not to be expected that in the usually limited conveniences appertaining to a villa residence that there is a proper place for storing fruit (even professional gardeners often find places deficient of that necessity), but here there is a strong reason why more care should be taken in gathering the fruit; for depend upon it the more care that is bestowed upon the different sorts of fruit the longer and better it will keep.

Now let us see what ought to be our guide. First, in the work of gathering, it is a wise provision of Nature that all the fruit upon a tree does not ripen at one and the same time: hence the importance of knowing when a fruit is ripe or fit to gather, and in the best condition for use. Take Peaches and Nectarines, for instance; their natural colour upon the tree often leads one

to think they are ripe when they really are not. One way to test these is to take a gentle hold of the fruit between the thumb and second finger, let the finger be the testing agent by pressing the fleshy part of the fruit close or near the stalk; if this is soft the fruit may be safely gathered. But even then I consider that by laying the fruit on a clean paper in a sunny spot under cover sometimes for twelve or twenty-four hours it is better fit for table than when fresh gathered; though here the fruit must be watched and used at the proper time, or its richness soon deteriorates. Late sorts of Peaches are seldom so good in flavour as the early and midseason kinds, and require to be gathered a longer time before use.

Apricots are perhaps the most peculiar fruit of any to secure properly ripe at all parts. It often happens that the part of the fruit most exposed to the sun has a rich-looking colour about it, and is ripe first there, but at other parts is quite hard; therefore the test applied to Peaches will hardly answer for Apricots, and if they were allowed to hang upon the trees, to which they adhere very firmly, till the under part was ripe the other part would be worthless. I generally expose my fruit to the sun as much as possible by pulling off all overhanging leaves, and then gather when the under part of the fruit is nearly of the same colour as the top, and lay it out for a day or two it is fit for table. As to Plums there is not much difficulty, for they readily part from the twigs when ripe. Cherries, the dark sorts tell by their richness of colour, and the light-fleshed sorts by their transparency. Of Figs my old tutor used to say they are ripe when the small end was of the same colour as the largest end; however, I found that by waiting for this I was often disappointed, for not only did the fruit not all colour alike, especially the Brunswick and Brown Turkey, but the fruit often split at the top, and then it soon spoils. I gather as soon as the eye at the top begins to open and the seeds exposed turn to a brown colour, and if the fruit is soft there is not much wrong.

Of Pears there is an amount of judgment needed, for some sorts, such as the Jargonelle and Williams' Bon Chrétien, should really be gathered before they are quite ripe. I mean that if allowed to remain on the tree till they colour, within twelve or twenty-four hours after that they are not fit for the dessert. Like some sorts of Melons they are ripe before they show it, and especially so if grown on a wall. One test is by cutting a likely-looking fruit asunder, and if it has good flesh, with juice exuding from the cut, and the kernels are black, it will be pretty safe to gather. With regard to late Pears, such as keep over Christmas till spring—that is, Easter Beurré, Winter Crasanne, and Winter Nellis, as well as others, they must be gathered when the kernels have changed from a white to a brown colour, for they do not ripen on the tree, but require to be laid up a considerable time, or till their season comes round.

Of Apples the early dessert kinds, such as Juneating, Irish Peach, and Red Astrachan are tested by the same means, and so are the Codlins and other early kitchen kinds. There are other means of testing: One is to observe when they begin to fall from the tree; and another is to raise the fruit up just above the level of the string, and if it is ripe it will part quickly from the tree, and Pears may be safely tested in the same way.

All fruit should be gathered when dry, and be put into a basket upon some soft material to prevent bruising.—THOMAS RECOR.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

We continue to store the earlier sorts of Apples and Pears as they are ready for gathering. Pears are gathered at different times from the same tree, at intervals of say a week or ten days, in order to prolong the season. The earliest gathered will ripen first. We are now using Williams' Bon Chrétien from standard trees. Other fruit from the same trees has just been gathered, and will not be ready for two weeks longer; by that time the earliest Louise Bonne of Jersey will be ready for use, and also Fondante d'Automne, Beurré d'Amanlis, and Beurré Hardy.

Plum trees are actually being broken down with the weight of fruit, especially the large kitchen Plums, such as Pond's Seedling, Diamond, Victoria, &c. The Bullace trees, although the fruit is not large, are so overloaded with it that many branches have broken with the weight—some of the trees we propped-up with sticks. It is a mistake to allow the trees to bear such enormous crops, and if time could be spared it would be much better to go over the trees and thin out the fruit early in the season, that which was left would be of much superior quality, and the trees would not suffer; besides, such enormous crops are not required, as much of the fruit is wasted. Those who have recently planted trees should now take notes of them, as it will be necessary to do away with some of the sorts however well selected the collection may have been. Many varieties of fruit trees that do well in some gardens, in others are quite worthless; but it is best to give the trees two or three years' trial before discarding them. Plums generally do well with us

planted out as pyramids, but Braby's Green Gage and Reine Claude de Bavay, both very large late Gage Plums, have after seven or eight years' trial failed to give satisfaction, and as the trees are such rampant growers they must be removed. The fruit cracks and decays before it ripens.

Amongst Pears many varieties that produced fine, large, clean fruit on the excellent clayey loam in the nurseries of the Messrs. Rivers of Sawbridgeworth, are quite worthless in our soil; two of the best are Doyenné du Comice and Beurré Superfin. The fruit with us is always diseased and cracks badly. Beurré Rance was obtained double-grafted, but the fruit which is produced in abundance never grows to its full size, and also cracks badly. In good seasons we have had tolerably good fruit, but it is too uncertain to be allowed space any longer. When trees that have grown six or seven years in one place are removed it is necessary to trench the ground deeply, and to add some rotted manure and fresh loam; placing some rotted turfy loam round the roots of the trees when planting them is also very necessary.

Peach and Nectarine trees on the walls should be looked to as directed two weeks ago, and the shoots that are loose to be nailed-in, not only to improve the appearance of the trees but also to allow the fruit to ripen and colour well. Any fruit that is shaded with leaves should be exposed by having the leaves laid aside by the hand, or picked off, and this is the more necessary with late Peaches.

The same may be said about Vines on walls. Wasps and flies attack the berries before they are ripe, and the best way to protect them is by covering each bunch with gauze bags. Where the lateral growths are crowded it is best to thin them out and to nail the loose shoots to the wall. Many amateurs and cottagers in the south grow very good Grapes upon walls. In favourable seasons Black Hamburgh ripens well, and the Royal Muscadine seldom fails to produce good crops. Dust with sulphur on the first appearance of mildew. Many persons say that Grapes cannot be grown out of doors as they used to be grown. Probably the reason is that the same amount of attention is not bestowed upon them as heretofore. We have heard people complain that their Grapes did not ripen well. How could they when leaves and fruit were smothered with mildew, and scarcely any attention had been bestowed upon them from the time of pruning and nailing in early spring until the fruit was gathered? With the same attention that is bestowed upon Vines under glass good crops of well-ripened Royal Muscadines can be obtained nearly every season.

We look over the Strawberry beds about once in ten days to cut off the runners that are abundantly produced on the young plants; we have also run the Dutch hoe through the rows once since the plants were put out early in August; they will be hoed again in a week or so. The plants are now free from red spider; if it were not so, watering them with soot water two or three times would destroy the pest. Hoe the ground everywhere if there are any weeds.

### VINERIES.

If the fruit is not quite ripe in the late houses a little artificial heat should be applied to ripen it; indeed, the temperature at night should not fall below 65°, with the ventilators a little open both at the front and back of the house. Plenty of ventilation is requisite by day, but the temperature should be kept up to 70° if the days are cloudy, and 5° or 10° higher during sunshine. Any shrank or mouldy berries should also be removed at once with the thinning scissors. It is not desirable to have plants in the house at this season, but if it cannot be avoided care should be taken in watering them that no water be spilled about unnecessarily.

Pot Vines intended to bear fruit early next year, and that will be started about the end of October or the first week in November, should now be cut back to the required length. The pots should be placed in a house where but little artificial heat is used, and no more water be given to the roots than is sufficient to keep them moist and in a healthy condition.

### GREENHOUSE AND CONSERVATORY.

We shall as soon as convenient remove the hardwooded plants that have been out of doors for the summer months into their winter quarters. Before doing so the pots will be cleaned, and the plants be tied and have all withered and decaying leaves removed. The drainage should also be free from any obstructive material; the health of the plants very much depends upon the free outlet for superfluous water. The plants ought not to be placed in a position where worms can work up into the pots. To prevent this we place the pots on a couple of bricks. A stout stick is also driven into the ground close to the pot, or if the pot is large two or three sticks. The pot is fastened to the sticks, and there is then no danger of the wind turning the plants over. If worms should get into the pots it will be necessary either to turn the plants out and to examine the roots, or water with lime water. When the plants are all arranged in the greenhouse the ventilators should be fully open night and day until the plants become accustomed to their new quarters; and if the weather is very dry it may be desirable to dew the plants



of unconsumed gas entering the house, would answer, though we should prefer a gas-heated boiler with 2-inch hot-water pipes.

**GRAPES SHAKED (E. W. C.).**—The footstalk of the bunch you sent us is badly shanked. It is caused by the roots not supplying sap to meet the demands of the leaves and fruit. See answer in last week's Journal to "T. Upton," page 210.

**ASH SEEDLINGS ON WALL (Narberth).**—Cut them down as soon as the slightest fresh growth appears, and if you continue the cutting they will die of exhaustion. Applying an acid to the stumps would injure the wall. The new issue of "How to Farm Two Acres Profitably," is now ready.

**AMARANTHUS PRINCESS OF WALES (W. Hender & Son).**—The exemplar sent are unusually brilliant in colour, and the variety promises to be an acquisition for decorative purposes, especially as it is easily raised from seed.

**PEACHES DEFICIENT IN FLAVOUR (J. R. W.).**—There is no reason why the Peaches should not be good-flavoured from your house if you manage them properly. Soil has very considerable influence on flavour, but in any sort of loam good Peaches can be produced from sandy loam to heavy clay. As the roots are inside, too much or too little water would cause the fruit to be as you state. You should maintain a high temperature as soon as the fruit begins to swell after stoning, and up to the time that it begins to turn soft. If you study the "Doings" under the heading of Peach House you will obtain all the information you require.

**LILUM GIGANTUM CULTURE (J. M. T.).**—We grow this noble Lily in the same sort of soil as the others, but it will not succeed if it is freely exposed to the sun and air. The plants succeed best if placed under a low wall facing north, where the sun shines on them a few hours only in the afternoon. They must be grown in rather larger pots than the other sorts. It is best to use a garden frame or any other glass protection, although they will do quite well in the open air during the summer months.

**CONSTRUCTING A VINERY (E. P. N.).**—The height of the back wall being 15 feet, and the front of the vinery 5 feet, 2 feet of brickwork and 8 feet glass, the width of the house for an 18-foot rafter would be about 16 feet, including the front plate; but as you do not give us the height of the front, you had better ascertain from a carpenter what the width of the house will be with a 5-foot front, and the roof a pitch or fall of not less than 1 foot in 3 feet of space covered. A house 80 feet long would not more than about one-third pay the interest on first cost, and working expenses including gardener. A house 100 feet long would be necessary for what you seek. So small a house as 80 feet would be best without a division.

**CULINARY PLUMS (A. B. G.).**—The following will succeed as standards:—Early Rivers, Early Orleans, Prince of Wales, Victoria, Prince Engelbert, and Diamond.

**NAMES OF FRUITS (E. B.).**—Washington Plum. (Mr. Jackson).—Peach Pear.

**NAMES OF PLANTS (Rosery).**—The spray is of the Tamarisk; the leaves we cannot attempt to identify. (H. S. James).—*Gymnocarpha chrysophylla*. (J. A. D. S.).—1, *Veratrum viride*; 2, *Clethra integrifolia*; 3, *Centranthus ruber*; 4, *Gymnocarpha* sp.? (*Hidenborough*).—1, Abutilon, but we cannot decide the species; 2, *Polygala speciosa*; 3, *Andromeda* (*Leucothoe*) *axillaris*; 4, *Carya* sp.; 5, *Erythrina*, perhaps *herbacea*; 6, *Euphorbia portlandica*. (G. McAdam).—*Funkia ovata*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LARGE PRICES.

FROM the earliest weeks of the present year we have had our doubts as to the quantity and quality of this season's exhibition chickens, and from time to time we have hinted at the same in our papers in this Journal. We will not now discuss that matter, as later on we may give a brief recapitulation of the various successes in the different breeds, but the fact is fully substantiated by the immense prices that good chickens have fetched and are fetching this year. As a rule the summer exhibitors do not care to give long prices for birds for the summer shows, as such specimens but very rarely win in the autumn, and are usually of little or no use for the breeding pen. The knocking about they have when young, and the stimulating diet seems to upset them, and they very rarely appear to advantage against the fresh autumn-reserved birds, which not only will bear much of winter work, but will with care also be valuable additions to the breeding yards. This season, however, we have heard of almost double the ordinary prices being given for single chickens (Cochins, Brahmas, and Dorkings especially), for the summer shows, and this leads us up to the subject of the long and fancy prices for cocks and hens, and brings to our recollection the immense sums which have been paid for birds during the past few years.

Mr. Lingwood and Mr. Wragg must have made small fortunes of their Dark Brahmas and Buff Coochin cockerels and pullets. We heard last winter what they received for their best birds, and the prices were something marvellous. Fifteen pounds was thought an immense price years ago for a fowl; now £25 is thought nothing of. We believe Mr. Wragg last winter sold Lady Gwydyr's cup Crystal Palace Buff Coochin cockerel and pullets for close on £80, and we know for a fact that at the same show Mr. W. C. Burnell was offered £52 10s. for his adult Buff Coochin cock and refused the offer. Perhaps the latter is the highest sum that ever has been offered and refused for one single specimen; but we can tell of some tremendous prices which single birds have realised.

High-class specimens of the popular breeds always command a good and speedy sale. Fine specimens weekly are fetching £15 each, but the world knoweth it not. One or two friends of

the vendor may hear of the good sale, but beyond that the matter goes no further, and is thought of as a common everyday transaction. This fact shows us in a very striking way how deeply rooted our poultry fancy is, for we confess we had our qualms as to whether this late unfortunate season would not shake many amateur poultry-yards to their very foundations, but it seems not to have done so to any extent; and, as we before said, from the prices birds are fetching fanciers would seem to be buckling-to for the fray with greater zest and eagerness than ever.

We have noticed this season, too, that in many instances those who have, or have had, good early chickens are amateurs; and though their best may have been bought-up by the great exhibitors, and so found their way into their exhibition pens, still we are extremely glad to note the fact, as it shows us that considerable time and trouble must be brought to bear on the breeding of poultry, for we all know that perfect high-class specimens cannot be easily produced.

We will give a few prices which birds have fetched in the last two or three years, as they may be interesting to some. We have stated how well Messrs. Lingwood and Wragg do, and Mr. Burnell does not come far short of them. We saw his cup pen of chickens claimed at Oxford in 1873 for £21. We know he sold two cockerels last year for £20 each, and had within a pound or two almost as much for a dozen more. And now we hear he sold his first Coloured cockerel at Bath last week for £26 5s., the purchaser being the Rev. Hans Hamilton. In 1874 Mr. Beachey sold a cock and two hens, White Cochins, for £52 10s. At the last Palace Show Mr. Graham sold four Dragon Pigeons for £75, for Pigeons fetch as high prices as poultry when really high-class birds, and yet they do not cost one-quarter the money, and none of the actual and incessant trouble in feeding and rearing which poultry do. At the Crystal Palace, too, that great place for sales, a Dark Brahma pullet of Mr. Peake's, a Brown Red Game cock and several more birds were quietly claimed for £20 each; and at Bristol a few weeks later the first-prize White Coochin cock and the same exhibitor's highly commended pullet were sold for £40. And so we could go on for a long time, but we need not particularise any more instances, for we have said enough to point out an important fact. Whether these long prices actually benefit the fancy much we need not here go into, for we all know there are a certain number of exhibitors who, rich in this world's goods, make poultry a hobby and will win, and to do this they have very frequently to buy the coach birds of the time, and consequently have to pay heavily for them; and we know these are the people who keep the long prices up, and very likely to some great extent help to keep up and cement closer together the various stones which compose the poultry fabric.

These high prices which we have quoted, however, have all been given for Cochins and Dorkings, and specimens of the popular breeds. Certainly we know of £10 10s. being given for the first prize 1874 Palace Silky cock, but this was an extraordinary price for a bird of such an uncultivated breed; and, consequently, the fact these prices teach us is, that to the popular breeds many should turn who, perhaps, are now keeping a variety which, not being much sought for, is neither found often in the prize list, or whose specimens do not command good and steady sales. We would not for a moment wish to disparage our Leghorn, Andalusian, Minorca, Sultan, Silky, and other such-like friends—very far from it, for we have the greatest regard for them, and never lose an available opportunity of advancing their interests. But we would recommend those who have means for keeping two varieties to have two strings to their bow, and try to raise some good chickens which will fetch such prices as to stimulate the poultry-keeper, and at the same time help to keep the pot boiling in so substantial a manner.

Amateurs with ordinary advantages can and do do this; and as it is for amateurs we write, we hope that they will turn their attention to the subject, and so be the means of building-up more strongly than ever this poultry fancy which is so interesting to many of us.—W.

### AIRDALE SHOW OF POULTRY, &c.

THIS Show was held in Myrtle Park, at Bingley, on Wednesday the 1st inst. Poultry were in the open air, but in excellent pens, the backs and tops of which were covered with cotton, a point we would draw the attention of other societies to, as being one of great protection to the fowls. Pigeons were, however, provided with a capital marquee, and the pens being of the most approved pattern they looked well.

Game were the first on the list, with a class for Red cockerels (the whole show was for young birds), the first-and-cup going to a promising bird, a Brown Red, but very young; the second a good bird, fuller of colour, but a little overgrown; the third a moderate bird, though we liked pen 6 (Martin) full as well. In pullets the winners were also Brown Reds, the first forward, good in colour, but long in body; second a fair bird, as also the third, but this we thought rather overtrimmed, but otherwise

the best. Any other cockerel was a Duckwing, superb in all points; the second and third also fair Duckwings. In pullets we should have placed pen 5 (Mason) first, as by far the best, all points counted, a Duckwing; second and third were Duckwings, and first a Pile, the latter, however, very good. Buff Cocks forward and large; the second and third-prize pullets almost as rich as a finely-peppered Canary; the first not so good in colour, but the cockerel a little larger perhaps. Partridge won the cup, these being a nice lot, and the awards well made. *Brahmas*, Dark, a fair lot, the winners standing clear of the rest. The first-prize Light Brahmas were very good in size and marking; the second also a nice lot. *Spanish* very good; the cup for this section was given here. *Dorkings* good, as also the *Poizants*, in which Golden won. *French* low were a moderate lot, the *Créves* by far the best. *Hamburgs*, Gold-spangles, a grand pen first, the rest fair. In Silver-spangles we thought the second best, though a little later, but both were nice pens. Gold-pencils a good lot, the winning pullets most beautifully pencilled. Silver-pencils not as good as Gold, with the exception of the first, to which the cup was given. Black Hamburgs moderate as a lot, but the awards not well made, and reversed from the Halifax Show; the first at the latter place were only highly commended, while the highly commended pen were placed first. Pen 4, not noticed, were worthy of first. *Bantams*, Game, first-and-cup were a neat pen, but the cock short of colour; second the best cockerel, but pullet poor; third Brown Red, large, but very good in style and colour. Bantams any other were first Silver Sebrights, very good, but rather large; second Blacks, good in all points but combs, which were too high; third very fair Blacks. Of Selling class we have no notes of interest.

*Pigeons* were a grand display, the list of prizes being liberal and tempting, and here was a mishap; Captain Heaton, being advertised to judge, had missed his train, and others had to be called in to do duty. Messrs. Beldon and Frith kindly consented to judge all except what the first-named gentleman termed the mongrels—Antwerps—at which he evidently took fright; and this section was judged by Messrs. Hutton and Hawley. In Carrier cocks first was a grand Black, with splendid eye and beak; second a good Black, and third a light young Black. In hens first was a grand young Black, with splendid beak; second a good Black, much heavier and older; and third a nice Dun. Carriers of 1875 were strong young birds. In Pouters first-and-cup a Blue cock in splendid show, good limb and style; second a Blue, perhaps a little better in limb, but scarcely as well up; and third a good White. Hens first and third White, and second Blue; a nice lot. Almond Tumblers very good and well placed, although the Rochdale first was only highly commended. Other Short-faces, were first a grand Kite, second a Red Wholefeather, and third Yellow Agate. In Barbs the cup was awarded to a very good Black cock, second a Red, faulty in colour, and third a Red. English Owls were a good and large class, and the winners all Silvers. In Jacobins we thought pen 1 (Swallow) the best, this being a grand Yellow. The first was awarded to a Yellow a little foul-fighted; second to a capital Red, and third to very good Red. In any other colour first and third were Blacks, and second Whites. Fantails were grand and well placed; the first was an exquisite bird. In Turbits the second Blue was best; first was a Blue, grand in head, but foul-thighed; third a good Yellow. Antwerps, a class entirely unknown a few years ago, were a show in themselves, there being 107 pens shown. First were Short-faced, with twenty-seven entries, though only twelve birds were noticed; first-and-cup for the best in the Show a Silver Dun, correct in every point, and just getting clear of the moult; second a Red Chequer, good in all points but gullet, of which it is deficient; and third a Short-faced Silver Dun, not as round in head as some, but with general good properties; and extra third a very stout Silver Dun; the other noticed birds being very good, but many were but Medium-faced. Medium-faced were a good class, perhaps as even as any, with twenty-three entries; the first going to a grand-coloured Silver Dun; second to a Red Chequer hen, which gave the Judges some difficulty, appearing a little too good in head to be genuine; third a grand Red Chequer, but a little splashed with Black; and extra third a capital Dun, which would have been higher only that he is a little too short in face. Long-faced had nineteen entries, and almost all were noticed, this being a class of very strong birds, feather and condition in many cases determining the prizes; the first a Red Chequer cock, second a Red Chequer hen, the third and extra third also of that colour were cocks. In Antwerps of 1875 there were thirty-eight entries, and in consequence the prizes were allowed in duplicate; the first going to a grand Short-faced Dun, and an extra first to an equally good Long-faced Dun; second a Red Long-faced, and extra second a Medium-faced Dun; the third to a Medium-faced, as also the extra third. Dragons, Blue or Silver, was won by Blues in all cases. In the other colours Yellow, Red, and Yellow won respectively. Dragons bred in 1875 were not good as a class, but the winners were superb; first a Silver, second Yellow, and third Blue. In

Gamon, Chester; J. Wright.

*Antwerps*.—Medium-faced.—1, J. Holden, Wibsey Black, Bradford. 2, J. Lister, Keighley. 3, W. Ellis, Idle, Leeds. Extra 2, H. D. Gough, Wakehampton. 4, C. F. Copeman. Ac, J. Lister; R. Brierley; W. Brook, Baildon; J. Young; Ward & Rhodes.

*Antwerps*.—Long-faced.—1, W. Ellis. 2, W. F. Entwistle. 3 and Extra 2, H. Jennings, Allerton. 4, J. P. Rothwell; W. Ellis; H. Jennings; T. Hutton, Baildon; W. Gamon, Chester; R. Hutchinson, Littleborough. Ac, J. Cockitt; R. Rawnsley.

*Antwerps*.—Young.—1, H. Yardley; W. Illingworth, Wilsden. 2, W. Ellis; J. Wright. 3, J. Wright; H. Jennings. Ac, W. F. Entwistle; R. Rawnsley; J. Kendrick, Bodditoh; H. D. Gough; J. Greenwood, Morton.

*Dragons*.—Blue or Silver.—Cup, F. Eastwood. 3 and 2, R. Woods, Mansfield. Ac, W. Smith, Liverpool; R. Wood. Any other colour.—1 and 2, R. Woods. 3, Wells & Sherwin, Ripon. Young.—1 and 2, F. Graham, Birkenhead. 3, R. Woods. Ac, S. Wade, Baildon; G. E. Chavasse; W. Smith.

*Tombles*.—Long-faced.—1, W. Ellis. 2, J. Cargill, Hovingham. 3, Eldley and Dye. Ac, G. E. Chavasse; E. M. Beckwith.

*ART OTHER VARIETY*.—1, J. Baker. 2, E. M. Beckwith. 3, T. Shackleton. Ac, T. G. Sprunt; R. Fulton; E. M. Beckwith; S. Lawson; J. Baker.

*SELLING CLASS*.—Single Bird.—1, R. Rawnsley. 2, T. Foster. 3, S. Lawson. Ac, J. Blanchard, Driffield.

*SELLING CLASS*.—Pair.—1, R. Rawnsley. 2, S. Lister, Keighley. 3, W. Ellis. Ac, W. Lund, Shipley.

*JUDGES*.—Poultry: Mr. R. Teebay, Fulwood, Preston; Mr. J. Dixon, North Park, Clayton, Bradford. *Pigeons*: Messrs. Beldon, Frith, Hutton, and Hawley.

**DARLINGTON BIRD SHOW.**—The schedule gives thirty-two classes, with prizes of £1, 10s., and 5s., to twenty-eight of them, and to four classes of British birds—the Goldfinch, Brown Linnet, Bullfinch, and any other variety of British bird, prizes of 15s., 10s., and prize cages and a plated tea-pot. The entries are announced to positively close on Saturday, September 26th.

**Mrs. ACTON TINDAL'S BUFF COCHIN COCKEREL** which won the cup at Birmingham was not bred by Mr. Wragg, as stated by the writer of "More Remarks on the Birmingham Summer Show." We have letters from Mrs. Tindal, from her poultry manager, and from Mr. Wragg, all stating that the bird was not



bred by Mr. Wragg; and the two first-named state that Mrs. Tindal never shows any birds not bred by herself.

## BATH SHOW OF POULTRY, &c.

SEPTEMBER 1ST, 1875.

PARTRIDGE or poultry? Capital oveys we knew of tempted one way, pleasant recollections of the last Sydney Garden meeting tempted another way; but we needed no subtraction sum to find out that whereas we had only two days for Bath, we had many weeks for the Partridges. So to the town of buns, chairs, and olivers we betook ourselves. We certainly did feel a tiny bit of envy as we passed quickly in the early morning through the spider-webbed fields among the silvery mushrooms, and saw the dogs about, and heard the first bang of the day; but then we remembered the courtesy of the Bath officials last time, and hoped for as pleasant a reception this year. When we arrived at the Show, however, we found a most terrible blank in the ranks of the Committee. Mr. Holmes, where was he? Mrs. Holmes, where was she? Can we ever forget how the latter lady laboured nearly all the night through among the birds last year, working for the good cause of their Show? Why, she was worth half a dozen of any ordinary committeemen herself, and now this year we found her and her husband missing from the party. We, of course, inquired the reason, and when we heard how the case stood we could only feel glad that Mr. Holmes had resigned, and congratulate them both on being out of the worries and troubles. But still their absence was a considerable loss, and many felt it extremely. The Judges were Mr. Hodson and Mr. Tegetmeier; the former for poultry and the latter for the Pigeons; while Mr. Blakston adjudicated on the cage birds, and he with Mr. Tegetmeier also judged the Rabbits. It is always an unsatisfactory job to judge a large show where the classes are for adults and chickens together, but we thought each Judge performed his arduous duties most efficiently; of course we differed in some few awards, but they were mostly very carefully made.

The poultry and Pigeons were shown in a large tent, while the cage birds were exhibited in the summer alcoves, which being tastefully decorated made a pretty addition to the show-yard. Turner's pens were used, and the feeding and management were good. We must not forget to say, however, that on the first day from 1 p.m. to 2 p.m. every visitor had to pay 5s. 6d. to go in, and after then 3s. 6d. These charges are simply exorbitant; but the fact is everyone had to pay to go into the flower show, and then again to pass through the poultry barriers.

*Dorkings* came first in the catalogue, and Mr. Burnell easily walked in his Coloured cockerel. He is a splendidly-made bird, and good in colour and feet. Second went to an old bird out of feather with a bad upper toe, but otherwise good. Pen 1 (Briden) was a large chicken, but poor in comb and rather knock-kneed. We liked pen 8 (Feast) very much, but he had too much white in his tail. In hens the winner was a grand rose-comb from Little Ness, second going to a good hen of Mr. Burnell's, which, we believe, was sold on the ground. 14 (Beachey) a very large dark pullet, and promising to make a huge bird, but she was rather sooty on her feet, or would have been in the list most probably. In the next class a splendid Silver-Grey won first, being good all round; second going to a nice White, save that his comb was faulty in peak. In hens a good White was first, and a very nice White pullet second, third going to a nicely-coloured but small Silver-Grey. We miss Mr. O. E. Cresswell's name in these classes this summer, and are sorry to learn he has had to leave England for change of air owing to delicate health.

*Cochins* were not as good as we expected. The winning White cock deservedly won the cup. He is good in all points, only has lost one serration in his comb. The second was also an adult White, but he was moulting, and looked ragged in hackle and tail. Third, the winning Birmingham cockerel, a fair chicken, but one which will never make a large bird. White hens were only moderate. The best shaped hen in the class was 38 (Feast), but she was not large and hideously dirty. In the other two Cochins all colours had to meet. In cocks a good Partridge won first, second going to an old Buff. In hens Buffs won all the prizes, first being an old hen, rather faded-looking and seedy; second was a lovely pullet, and preferable we thought to the winner.

Dark *Brahmas* were splendid. The two champion cups went to these two classes. Mr. Ansdell was indeed fortunate, but his birds deserved their honours. His winning cock and prize hens were adult birds, and had moulted-out as clean and bright as possible. In hens the third went to a fine pullet, well-feathered and clear in markings. Light *Brahmas* were two wonderful classes. Cockerels won all the prizes in the first class. Mr. Dean's bird only came in second, but we believe he bred the winner. All his birds were large and well-grown birds, but they were rather too creamy on the back. The third was very symmetrical and pretty, with a charming head. 83 (Scammell)

good, but poor in comb. 80 (Petter) we liked immensely, and thought it was hardly used. In hens a finely-shaped pullet was first; she certainly was not a good colour, but her other points were perfection. Second a good old hen, well shown. Third a nice pullet, but we infinitely preferred 96 (Petter). It was a glorious class, and the pullets were a wonderful lot.

*Game* were not large classes, and the chickens few. In Red cocks or cockerels a finely-shaped old Black Red won, but he was generally out of feather; second a fair Brown Red; third a Black Red, too thickly made, but good in head. Hens were a fair class, and the winners about right. In the other Game classes an adult Pile cock with very brilliant yellow legs won the cup. He was in good feather, and bright in colour. 128 (Winwood), a nice undubbed Pile cockerel. In the next class we admired the second pullet very much, and should almost have placed her before the winning hen.

*Hamburghs* were very nice, in fact quite a superior collection. The cup went to a very good Golden-pencilled cock, just beginning to lose his tail feathers. The other winning Pencilled cocks were also good. In hens the winner was clear in markings and a nice bird generally, but the Spangled cockerels were the cream of the *Hamburghs*. The winning Silver was a gem in all points save legs, and these were too white, but his tail, bars, and head very grand. Second a splendid Gold, one of the best chickens we have seen for some time. For third we should have gone to Mr. Long's Golden. It was but little behind the second-prize bird, and promises to make a beauty. In hens a nice Silver was first, and a good Gold second; this too was a fine class.

*Malays* mustered twenty pens, and paid their way in a truly noble manner. The first cock won the cup; he was in nice feather and condition. Second went to a good cockerel, and third to a smart old bird. 164 (Browne) a good cockerel. 166 (Hinton) a very nice White, which we thought well worthy of a notice. It was a square bird and good in points, though it may never make a monster. The hens were a nice lot and seemed well judged, though we should have liked to have seen two or three good pullets of great promise more highly noticed; among them pens 175 (Brooke) and 177 (Hinton), which contained a very handsome pullet, though in colour a shade too light for our taste.

*Spanish* were small, but good classes. Old birds won most of the prizes, and the winners came from the neighbouring city of Bristol, and were quite up to the standard of Messrs. Jones and Chilcote's usual form.

*Minorcas* had two classes, and we were much pleased with the birds. They were principally Blacks, which with their large combs and brilliantly-hued plumage looked exceedingly handsome.

*Houdans* were good, and an immense number of birds were deservedly noticed. The winning hen was one of the best we ever saw, her markings were what we consider an ideal Houdan should be. We fancy we have seen this hen winning formerly in Mr. Dring's name, but may be mistaken. 226 (Pearce) an exceedingly good bird.

In the other *French* class a splendid La Flèche was first, good Crêves being second and third. In hens Crêves won all the prizes; the winner was a great beauty. The third was also a very nicely-grown pullet.

*Silbies* were very pretty, and attracted much attention. The winners were well placed, though the first pullet was not quite developed enough in claws to please us. It is wonderful how very much this breed is being used for sitting purposes; certainly they are admirable mothers, and for rearing Bantams and Game are invaluable.

In the Ornamental class Pheasants won all the prizes. There were also in this class two good pens of Guinea Fowls, but what can they do against the gorgeous Gold and Silver Pheasants?

The Variety classes were capital. In cocks a grand White-crested Black Polish cockerel was first, one of the best we have seen this year. Second went to a good Golden, third to a beautiful Black *Hamburgh* cockerel of great lustre. 260 (Long) a Silver Poland with huge crest, but he seemed out of condition. 263 (Harris) a fine Black Malay, which we suppose should have gone into the Malay class. In hens a splendid Golden Poland won first and cup, second a grand Silver Poland with capital crest and markings, third a nice White-crested Black pullet, which promises to make a fine bird.

*Game Bantams* were good in quality, but only mustered eight pens in the two classes. Bantams of any other variety made a splendid class, capital Silver-laced being first, good White-booted second, and nice Blacks third. 285 (Boissier) a wonderfully good pen of White-booted, almost superior, we fancied, to the second-prize pen. 291 (Holloway) good Silver-laced.

*Ducks* were good, and the awards seemed quite correct. The winning Aylesburys were very fine. In Blacks Mr. Sainsbury ran his two pens in easily; they were of nice colour and in brilliant condition. Third went to fair birds, but the Duck was too stumpy in body. Mr. Kelleway's pen was empty. There were only two pens of *Turkeys*, both adults and both good.

Geese were a nice lot. Good Toulouse were first, Embden second, and Grey again third. 374 (Snell) a fine pair of Embden.

The Pigeons were a very good lot, the classes being well filled and the quality capital. In many cases the competition was very keen. Messrs. Yardley, Hammock, and Baker bringing each a very fine team of birds. The winning Carrier cock was a beautiful bird, his shape being perfect and head very good. The third Dun cock was also a beauty. The hens, too, were a grand lot; the winner was a beautiful Blue, though the third-prize bird, which we almost preferred to second, pressed closely on her. In Pouter cocks a superb White was first-and-cup. In hens the winner was very smart, and seemed anxious all should see her best points, for she "played" in a very becoming way. Barbs were nice. A splendid pair won first, and the same exhibitor's pen of Duns (416) were a grand pen. Tumblers were admirable classes. The competition was very keen, but Mr. Hammock's birds pulled off the cup, and deservedly so, though Messrs. Silvester, Baker, and Yardley showed good birds, and made these two Tumbler classes a show of themselves. Dragoons formed a large class; nice Silvers won first. We noticed a nice pen of Blues, but they seemed to contain two cocks by mistake. Antwerps were good; we saw one or two good individual birds which being put with inferior mates had to be left out in the cold. The Toys were good, but not large classes. Fantails, Turbits, and Jacobins perhaps the best. Somehow Mr. Maynard's Fans did not look so well as usual. A pretty medley in the shape of a Variety class of sixteen pens brought this most interesting department to a close.

The Rabbits were large classes, but the Judges had been hard at work among their other classes for some hours previously, and so they must be excused for any errors. The Committee should most certainly have engaged a separate Judge when they found how heavy the entries were. The two cups fell to Mrs. King's Lop-ear and to Mr. Mason's Himalayan. Among the Lop-ears the first Sandy buck and first and second Tortoiseshells we thought extremely good; the third Himalayan was beautiful in its markings. In Angorians only one pen appeared; this was, however, a nice white animal. The Belgian Hares we went round before the Judges came to them, and we marked the three prize Rabbits for the three places, though hardly in the winning order. Still this shows there could not have been much wrong. The first-prize Dutch was a good Blue-and-white. There were no entries in the Variety class or in that for the heaviest Rabbit. We furnish full awards of all the classes below.

Cage Birds numbered about 180 entries, and a very interesting feature they presented in the Show. The prizes although liberal failed to induce many Canary exhibitors from sending out their birds. Belgian Canaries were somewhat plentifully entered, and it was to a bird exhibited in Class 68 by Mr. J. T. Holmes of The Cedars, Bath, that the champion cup of the value of three guineas was given. The above fortunate exhibitor also gained the turquoise oviform vase of the same value, given "for the best cage of foreign birds or single bird." The Rev. Hans F. Hamilton, Mrs. W. C. Drummond, and Messrs. Adams, Soott, and Long were amongst the more fortunate exhibitors. The foreign specimens in particular were very showy in their gorgeous and varied-coloured plumage. So far as the Canary portion of cage birds are concerned the present period is somewhat inopportune for birds to be sent freely for exhibition, owing to their being just now in the depth of moult. In a very short time we may expect to find them entered in abundance. There were a few good birds in the various classes, some of immense high colour.

**DORKINGS.—Coloured.—Cock or Cockerel.**—1 and Cup, T. E. Barnall, Michel dever. 2, Rev. H. F. Hamilton, Chard. 3, R. Cheesman, Ashford. 4, E. Feast, Hen or Pullet. 5, A. Darby, Shrewsbury. 6, T. E. Burnell, 8, Rev. E. Bartrum, Berkhampstead. 9, E. Cheesman. 10, H. Feast. 11, J. Taylor.

**DORKINGS.—Any other variety.—Cock or Cockerel.**—1, T. E. Burnell. 2, E. A. Postle, Chippenham. 3, Withheld. Hen or Pullet. 1, T. E. Burnell, Mounmouth. 2, T. E. Burnell. 3, J. Long, Bromley Common. 4, E. A. Postle.

**COCHINS.—White.—Cock or Cockerel.**—1 and Cup, C. Bloodworth, Cheltenham. 2, Talbot, Edebridge. 3, J. Turner, Bath. 4, T. H. Waterman. 5, A. Bissler. Hen or Pullet. 1, C. Bloodworth. 2, J. Turner. 3, S. E. Harris, Gazeaux.

**COCHINS.—Any other variety.—Cock or Cockerel.**—1, Hon. Mrs. Sugden, Wells. 2, S. E. Harris. 3, Mrs. Radclyffe, Wareham. 4, Miss M. Dickinson. 5, H. Feast. Hen or Pullet. 1, S. E. Harris. 2, C. Sidgwick, Keighley. 3, G. Bloodworth. 4, H. Feast. 5, Mrs. L. Jones.

**BRAMHMS.—Dark.—Cock or Cockerel.**—1, Cup, and 2, T. F. Ansell, St. Helens. 3 and 4, Rev. H. F. Hamilton. Hen or Pullet. 1, Cup, 2, and 3, T. F. Ansell. 4, J. E. Williams. 5, H. Kacey, T. Lark. 6, J. Evans. 7, F. Lake. 8, T. F. Ansell.

**BRAMHMS.—Light.—Cock or Cockerel.**—1, M. Leno, Dunstable. 2 and 3, T. A. Dean, Marden, Hereford. 4, J. Turner. 5, Mrs. G. Bain, Taunton. 6, H. Stephens. Rev. W. Pearce. 7, T. A. Dean. 8, Mrs. W. C. Drummond. 9, Mrs. J. T. Holmes, Stroud. 10, H. Stephens.

**GAMES.—Black or Brown-breasted Red.—Cock or Cockerel.**—1, J. Mason, St. John's. 2, E. S. Goddard, Stroud. 3, H. Brown, St. Austell. 4, J. F. Lake. 5, W. L. Blake. Hen or Pullet. 1, H. Phelps, Yeovil. 2, J. Long. 3, J. P. James, Swansea. 4, J. Cock. 5, W. T. Eversard.

**GAMES.—Any other variety.—Cock or Cockerel.**—1 and Cup, T. Hassel, Market Drayton. 2, J. Long. 3, G. H. Fitz-Harbert, Sevenoaks. 4, E. Winwood. Hen or Pullet. 1, G. S. Premise, Cirencester. 2, G. H. Fitz-Harbert. 3, J. Long.

**HAKESBONES.—Gold and Silver-pencilled.—Cock or Cockerel.**—1, Cup, and 2, J. Long. 3, H. Pickles, Leeds. Hen or Pullet. 1, C. J. Jackson, Peckham. 2, S. Elliott, Liskeard. 3, J. Long.

**HAKESBONES.—Gold and Silver-pencilled.—Cock or Cockerel.**—1, H. Pickles. 2, T. Blackman, Tettenhall. 3, J. Carr, Swansea. Hen or Pullet. 1, J. Carr. 2, H. Pickles. 3, J. Long. 4, J. Carr. 5, W. Evans. 6, J. K. Harris.

**MALAKAS.—Cock or Cockerel.**—1 and Cup, T. Joint, Barnstable. 2, T. Lecher,

Redruth. 3, Rev. N. J. Ridley. 4, Miss A. Brooke (3). Hen or Pullet. 1 and 2, T. Joint. 3, Miss A. Brooke, Shrewsbury. 4, S. Elliot. 5, Miss A. Brooke; J. Hinton.

**SPANISH.—White-faced Black.—Cock or Cockerel.**—1 and 2, E. Jones, Bristol. 3, G. K. Chilcott, Bristol. Hen or Pullet. 1 and 2, E. Jones. 3, G. K. Chilcott. **MINORCA.—Cock or Cockerel.**—1 and 2, J. B. W. Williams, Devonport. 3, J. Cooke, Exeter. Hen or Pullet. 1, Cup, and 2, J. B. W. Williams. 3, J. H. Hood, Tiverton. 4, M. H. Sturt, G. Rogers (3).

**HOUDANS.—Cock or Cockerel.**—1, W. H. Copplestone, Lostwithiel. 2, F. Brower, Lostwithiel. 3, W. Dring, Faversham. 4, R. K. Penson; E. Handley. 5, Mrs. K. R. Vallance; F. Lake. Hen or Pullet. 1 and Cup, Mrs. K. R. Vallance, Sittingbourne. 2, W. H. Copplestone. 3, G. D. Harrison, Datchet. 4, M. H. Sturt; Rev. W. Pearce; G. W. Hibbert; S. W. Thomas. 5, W. Hibbert, Hyde. 6, M. H. Sturt, Powley. 7, G. De Faye. Hen or Pullet. 1, H. Feast, Swansea. 2, W. Calhoun, jun., Littleport. 3, W. Dring.

**SILKINS.—Cock or Cockerel.**—1 and 2, E. S. S. Woodgate, Pembury. 3, O. E. Crosswell. Hen or Pullet. 1, O. E. Crosswell. 2, E. S. S. Woodgate. 3, A. Darby.

**ORNAMENTAL FOWL.**—1 and 2, Mrs. W. C. Drummond, Bath. 3, J. Tozrance, Warminster.

**ANY OTHER VARIETY.—Cock or Cockerel.**—1, T. Norwood, Salisbury. 2, A. M. H. Silvester, Sheffield. 3 and 4, J. Long. 5, H. Pickles. Hen or Pullet. 1 and Cup, A. M. H. Silvester. 2, J. Hinton, Warminster. 3, T. Norwood. 4, J. Long (3). 5, Hon. Mrs. Sugden.

**GAMES.—Black and Brown-breasted Red.**—1, E. Brown, Townsend. 2, D. C. Wingfield, Worcester. 3, K. J. Ardagh, St. John's. Any other variety. 4, E. Brown. 5, J. Long.

**ANY OTHER VARIETY.**—1 and Cup, M. Leno. 2, Mrs. S. Crook, Keynsham. 3, J. Long. 4, G. Holloway, jun.; Mrs. J. T. Holmes. 5, D. C. Wingfield. 6, E. A. Boissier.

**BELLING CLASS.—Cock.**—1, M. H. Sturt. 2, G. K. Chilcott. 3, J. E. Pilgrim, Hincokley. 4, H. Feast. 5, Rev. J. M. Rice; J. Turner. Hen. 1, J. Turner. 2, H. Hunt, Bath. 3, S. Rogers.

**BELLING CLASS.—Cockerel.**—1, W. E. Smith, Cheltenham. 2, T. M. Derry, G. G. Dickson, Taunton. 3, F. Brown. 4, C. Bloodworth. 5, T. A. Dean. 6, G. W. Petter. Pullet. 1 and Biscuit Basket, A. Bamford, Middleton. 2, Rev. J. M. Rice, Steyning. 3, Miss B. Neville, Glastonbury. 4, J. W. Atkinson; F. Brown; 5, W. Petter.

**LOCAL CLASS.—Cock or Cockerel.**—1 and Stationery Basket, J. Turner. 2, Miss Milward, Bristol. 3, G. & W. Smith, Bath. Hen or Pullet. 1, 3, and 4, Miss J. T. Holmes, Bath. 5, Miss Milward. 6, G. & W. Smith. 7, Mrs. W. C. Drummond. 8, J. W. Smith. 9, J. W. Smith.

**DUCKS.—White Aylesbury.**—1, S. B. Harris. 2, T. Lear. 3 and 4, S. Gulliver, Aylesbury. 5, E. Small. Rouen. 1 and Cup, W. H. Copplestone. 2, Mrs. Radclyffe. 3, E. W. Martin, Bath. 4, E. Small. 5, H. Feast. Black East Indian. 1 and 2, G. S. Sainsbury. 3, J. White, Bath.

**ANY OTHER DISTINCT BREED OF WATERFOWL.**—1 and 2, M. Leno. 3, J. Turner. 4, J. E. Nicholson. 5, Mrs. Radclyffe. 6, G. Hawks, Malmsbury. 7, J. E. Nicholson. 8, E. Small.

**TURKEYS.**—1 and 2, Rev. N. J. Ridley.

#### PIGEONS.

**CARRIERS.—Cocks.**—1 and Cup, W. J. Hammock, Thord. 2, W. Hopkins, Bath. 3, H. M. Maynard, Ryde. 4, W. H. Smith; E. Finkes; H. Yagley; H. M. Maynard. Hens. 1, J. Baker, Kew. 2, H. M. Maynard. 3, W. J. Hammock.

**FOURTEENS.—Cock.**—1, Cup, and 2, H. Pratt, Hampton. 3, D. Combe, New Cross. 4, L. W. Watkin. Hens. 1, J. Baker. 2, L. & W. Watkin, Northampton. 3, D. Combe.

**FOURTEENS.**—1 and 2, H. Yardley, Birmingham. 3, W. J. Hyde, Pillerton. 4, H. M. Maynard.

**TUMBLERS.**—1 and Champion Cup, W. J. Hammock. 2 and 3, J. Baker. 4, H. Yardley; A. & M. H. Silvester. Almond. 1, W. J. Hammock. 2, A. & M. H. Silvester. 3, G. Holloway, jun.; Stroud. 4, H. Yardley; J. Baker; D. Combe. 5, W. R. Pratt.

**DAISYCOONS.**—1, J. Baker. 2, W. Smith, Walton-on-Hill. 3, T. Clark. 4, H. Yardley; D. Combe.

**ANTWERPS.—Short-faced.**—1, H. Yardley. 2, E. Thompson, Birmingham. 3, J. Kendrick, Redditch. Any other variety. 1, W. R. Pratt, Oxford. 2, G. Garraway, Swainswick. 3, W. Gibbons.

**OWLS.**—1 and Cup, D. Combe. 2, J. Baker. 3, A. J. Barnes, Gloucester. 4, G. Holloway, jun.; W. Bryant; J. Baker. 5, J. P. Mills.

**NUSS.**—1 and 2, Miss A. Brooke. 3, Withheld.

**BARBONS.**—1, P. Holmes, Lower Sydenham. 2, J. Baker. 3, G. H. Gregory, Taunton. 4, D. Combe; T. A. London.

**FANTAILS.**—1, J. Baker. 2, J. F. Loveridge, Newark. 3, D. Combe.

**JACOBIANS.**—1 and 2, J. Baker. 3, D. Combe.

**TRUMPETERS.**—1, D. Combe. 2, W. E. Cooling, Bath. 3, J. Baker.

**ANY OTHER VARIETY.**—1, G. H. Gregory. 2, H. W. Webb, Lower Sydenham (3). 3, A. & M. H. Silvester.

**ANY OTHER VARIETY.**—1, W. D. Richardson. 2, S. Rogers. 3, E. Robinson. 4, Miss Dickinson.

#### CAGE BIRDS.

**BELGIAN.—Clear or Clear Yellow.**—1 and 2, Rev. H. F. Hamilton. 3, Mrs. W. C. Drummond. Clear or Ticked Buff. 1 and Champion Cup, Mrs. J. T. Holmes. 2 and 3, H. Davies, Wolverhampton. 4, Rev. H. F. Hamilton (3). **NORWICH.—Clear Yellow.**—1, J. Adams, Coventry. 2, C. J. F. Salt, Burton-on-Trent. Clear Buff. 1, J. Adams. 2, R. Baggs, Bath.

**NORWICH.—Variegated Yellow or Buff.**—1 and 2, J. Adams. 3 and 4, C. J. Salt. Crested Yellow or Buff. 1 and 2, C. J. Salt. 3, W. Radmore.

**LIZARD.—Golden-spangled.**—1 and 2, J. Long. Silver-spangled. 1, J. Long.

**GILGAMES.—Yellow.**—1, J. Adams. 2, J. Long. Buff. 1 and 2, J. Adams.

**CHINCHAS.**—1, E. W. Lulham, Brighton. 2, G. Andrews, Poole. 3, Mrs. W. C. Drummond (3).

**QUEEN OF THE CANARIES.**—1, J. Adams. 2 and 3, R. Baggs. 4, Mrs. W. C. Drummond.

**CAGE OF SIX ENGLISH BIRDS.**—1, Mrs. J. T. Holmes. 2, Mrs. W. C. Drummond.

**CAGE OF SIX FOREIGN BIRDS.**—1 and Vase, Mrs. J. T. Holmes. 2, Mrs. W. C. Drummond. 3, G. Goddard; Mrs. W. C. Drummond; Mrs. J. T. Holmes. 4, Mrs. W. C. Drummond; Mrs. J. T. Holmes.

**ANY OTHER VARIETY.**—1, J. T. Holmes. 2, Mrs. W. C. Drummond. 3, Miss Young. 4, Allen; W. Powell.

**LOVE BIRDS.**—1, J. Coker. 2, Mrs. J. T. Holmes. 3, G. Goddard; Mrs. W. C. Drummond; Mrs. J. T. Holmes; F. Schwaes.

**LOVE.**—1, G. Goddard, Bath. 2, Mrs. W. C. Drummond.

**MACAW ON COCKATOO.**—1, E. Barnard, Cirencester. 2, Mrs. W. C. Drummond.

**MACAW.**—1, G. Goddard; W. Powell. 2, Mrs. Matcham.

**PALMER ON PARROT.**—1, E. Noka, Bath. 2, Mrs. W. C. Drummond. 3, J. Coker. 4, G. Goddard; Mrs. A. King. 5, Wilbin; F. Schwaes; Miss L. J. Lawrence.

**FOREIGN BIRDS.**—1, Mrs. Matcham, Bath. 2, S. Rogers. 3, Mrs. W. C. Drummond (3); Mrs. Matcham; W. S. Daniels; Mrs. J. T. Holmes.

#### RABBITS.

**LOP-EARED.—Self-coloured.—Buck or Doe.**—1, T. & E. J. Fell, Blackburn. 2, W. B. Wrotham, Bath. 3, J. Quick, London.

**LOP-EARED.—Tortoiseshell.—Buck or Doe.**—1, Mrs. H. Pishworth, Spalding.

**LOP-EARED.—Reading.**—1, R. O'Connell, John's Wood, London.

**LOP-EARED.—Yellow and White.—Buck or Doe.**—1, Mrs. E. King, St. John's Wood. 2, Mrs. H. Pishworth. 3, W. H. Simmons.

**LOP-EARED.—Any other colour.—Buck or Doe.**—1, Champion Cup, and 2, Mrs. C. King. 3, J. Roberts, New Swindon. 4, J. Copenhurst; C. E. Bartlett; A. M. Murphy.





time." Such cases have been rare. We have been fortunate enough to obtain 50 lbs. of honey from several supers, but the stock hives are so poor that we have commenced feeding several of them to keep them from perishing. I observe that bees about here are fain to quench their hunger by attacking the windfalls under the apple trees. I am not aware that I ever remarked this before, although I have known them in bad seasons attack ripe fruit against walls and elsewhere. The drought of last year in this locality was such that I obtained next to no honey, and had to feed all through the autumn, so that we have had somewhat better luck this year, which is the fifth or sixth bad honey harvest in succession in this part of England.

I advise an immediate and careful overhaul in every apiary of existing stock. All hives strong in population but poorly supplied with honey should have sufficient food given to them at once and off hand to keep them in good health during the next six weeks. Then the grand feeding-up should begin, and be carried on continuously for a month at least. October is the best time for this main feeding, as activity recommences in all places where ivy blossoms abound. If this natural activity be stimulated by ample but gradual and continuous feeding, breeding will go on vigorously, and the hives will be all the stronger both to face the severity of winter, and to start fair with good prospects in the early spring. September is the month of repose for all bees everywhere. The quieter they are kept then the better; therefore I would give a few pounds at the end of August to every hive that needs it—say 8 lbs. or 4 lbs., but all, if possible, in one night. The quicker it is over at this time of year the better, because the excitement and consequent waste are less. As to the later feeding it should be all over at latest by the middle of November, earlier, of course, if you are living in the north of England. Make all snug and tight for the coming winter, narrowing entrances, protecting from damp, and covering up with some warm material.

As for despair, the word should be unknown in our vocabulary. "Better luck next time," is a good saying which savours of hope, and hope has a tendency to work out success. So, brother beekeepers, cheer up! Gather forces for another year's trial of the "busy bee." Those who do so perseveringly will for certain reap their reward.—B. & W.

**ALEXANDRA PALACE SHOW OF POULTRY AND PIGEONS.**—There are twenty-eight cups for poultry and twenty-three for Pigeons, besides good money prizes.

### A CHAT ABOUT QUEENS.

THE Yankee idea of a bee incubator certainly rather tickled my fancy, and it was also news that queenless bees would readily accept a newly-hatched queen provided she had not been with other bees, and agreeable to my promise published in your number of August 19th I sought to put the statement to the test, so this is how I proceeded. Having deprived two stocks of their queens—one a Ligurian, the other a mongrel—each stock immediately made about eight queen cells. Now, previous experience teaches me it is unsafe to leave queen cells longer than nine days after formation if more than one is to be preserved, so on the ninth day I set to work to cut the surplus cells out, devoting them to experimentalising. This work with the Ligurians was merely amusing, but with the mongrels—oh, ye gods! what little furies! I have given up gloves, and don't much mind stinging; but shall I confess it? I never voluntarily disturb this particular stock. So calling my son to my assistance, who put on a look of resignation when he saw the job in hand, we gave them a good dose of smoke, which is as disagreeable to me as it is to the bees, and I rarely make use of my smoker. Off comes the crownboard, and out come the combs one by one. It is a slow job. The bees are very strong, and I want all the queen cells removed, as I intend to supply the stock with one of the pure Ligurians. Groan succeeds groan as I pick out the stings from my finger tips, where I am rather sensitive. My boy's time seems pretty well occupied in the same direction, and I have to call him to the scratch several times. But we get through the frames at last, and grafting-in a couple of cells from my other stock, we are not sorry to reclose the hive.

Having a third stock without a queen I remove a comb with two queen cells on it to that, and leaving the remaining Ligurian cells where they were raised I gather up the mongrels to play with. The question now arises how they are to be kept at the requisite temperature, and be under constant observation at the same time. Having to go to town daily on business, my time with the bees is limited at this season of year to one hour in the morning and the same at night. As a temporary arrangement I pack them in two willow boxes and place them in my pocket for their first visit to the metropolis, where having arrived I rigged-up a hot-water incubator, but it did not act satisfactorily—sometimes too hot, then too cold; besides, I could not very well carry the apparatus backwards and forwards morning and night. So seeking for other warmth I put a thermometer in my trousers' pocket, and was delighted to find the tempe-

perature there about 90°—just the thing. In went a box in each pocket, and I felt as proud as a sitting hen. When bedtime arrived of course the boxes had to go with me, where I cuddled them up warm, notwithstanding a feeble remonstrance from my wife, who the second night startled me out of my slumber with an alarmed cry that she could hear a bee buzzing, and she was sure one had hatched and I had smashed the box! However, it was a false alarm, and after sixty hours of nursing the first young queen emerged, crippled in her wings, which did not surprise me, an experience of former days in rearing moths having taught me that with dry heat such was usually the case.

Now, the birth of this princess happened at a very awkward time, 10.30 p.m., all dark outside, and bees taking their well-earned rest, and they are apt to resent disturbance at night. However, there was no help for it. I was determined not to lose the chance of ascertaining her reception, so out I went with a lighted lamp. Cautiously removing a portion of the crown-board of the aforesaid mongrel stock, out came the bees, and down I threw the young queen into their midst. They rushed at her in an instant. Ah, I thought how much they would have her; but, no, their excitement cooled in a minute. They walked over and round her, but harmed her not. After a few minutes' watching I closed the hive, not wanting the queen cells destroyed, and covering the queen and a dozen bees with a cup queen cage, poured some syrup round it, shut down the hive cover, and left them till morning, when I found her with her retinue quite lively. Having again given a supply of syrup I opened my hive containing the major part of the Ligurian cells. One with the cap open, one torn to pieces, and two still intact. These I cut out after having seen the young queen was active and at liberty; then examining the other hive, where I had placed the frame with two queen cells, I saw one queen free and another just cracking her cell's lid. This I thought worthy of watching, and it was curious to see while the queen worked inside, occasionally protruding her antennae, about half a dozen workers were gnawing the cell outside. The queen was soon out, and notwithstanding her sister was already on the throne, the workers fed and cleaned her in the usual manner. The time at my disposal having now expired I left the two queens, curious to see what would be the result when evening arrived.

The two cells I had last transferred to my pocket hatched within two hours, and I was very anxious to keep the queens till evening to continue the experiment. By constant attention I succeeded in this. It has been stated a queen bee cannot feed herself; this is wrong. If a queen be hungry and she crosses some honey she puts forth her tongue and feeds, but she does not seem to scent food as a worker does, and very quickly starves. After four hours' fast she will usually be found too exhausted to stand. My two young queens I fed every half hour, and was generally obliged to put the syrup almost to their mouths before they would discover it.

I am much inclined to think queens do not fight to the death as has been so often described. We are all apt to repeat statements, and their very repetition stamps them as credible. I as an author do not claim any immunity from this fault; and, indeed, if the writer of a bee book only gave his own experience it would necessarily be very incomplete. I have many times put two queens together, the above-mentioned young queens among the number. They wrestle and fight vigorously, but in no instance have I seen one stung. The queens will protrude their stings, as they often do when no combat is in progress.

Again, it is said when two stocks or swarms of bees are united the queens settle the right of government themselves. This I doubt, for this summer I have mixed many lots, and after a few hours I find one queen encased by the workers in the usual manner, where she is doubtless worried to death. In one instance I caged the second queen in the ordinary manner in hopes the bees would get used to her and let her live, but after three trials at intervals of two days each the queen died of worry and exhaustion.

I am becoming very sceptical in the matter of queenly animosity one to the other, and begin to think that regicide lays more at the door of the workers than the rival queen. I recorded a case where five queens were put in a box together overnight, and in the morning four were dead. The survivor had the credit of the wholesale murder, but late experiments induce me to think that starvation had a good deal to do with it. I may also say that the queens hatched in the pocket boxes, although there were several unopened queen cells with them, showed no disposition to destroy them. It could not have been for want of time, as they were there six hours together. Now to revert to my juvenile queens.

On my return home I had three queens alive in my pocket, with which I commenced operations, first on a nucleus which I had deprived of its queen in the morning. Lifting out a comb I threw down into the midst of the bees a queen, crippled, and having some ragged remains of the pupa exuvium attached to her. With the usual rush the workers seized her, biting and tearing, but I soon found their fury was expended on the undesirable ragged skin. The queen was unharmed, soon cleaned, and at



liberty. Seeing this comb had been in my hand all the time, the bees remaining in the hive were still in the position of a queenless stock, and as I was desirous of multiplying my experiments as far as possible, I replaced the comb and took out another, on which I placed a fresh queen; this one was clean and well developed. The bees accepted her at once, feeding and licking her with the greatest affection. As twilight was now drawing nigh I replaced the comb, first abstracting the crippled queen, and then proceeded to the hive where I had left two queens in the morning. Alas! they were both gone, and the cause stood revealed by signs of the presence of a fertile worker—a patch of drone brood in worker cells, of which the poor bees in their desperate efforts to obtain a queen had converted more than a dozen into pseudo queen cells.

Now, I should be very curious to see what these abnormal cells would produce, but my friend Mr. Cheshire has sent me a similar lot, which contain unmistakable drones, although the cells are like ordinary queen cells elongated to the extent of 1½ inch. The question now arises how to get rid of this undesirable worker. Easy enough if I could find her, but know not how she is to be distinguished, and time is very scarce to-night. So in the desperate hope of a better fate I put in my last remaining virgin queen. She was well received, I left her to her destiny, and I found her all right next day and the next.

My day's experiments I felt were eminently successful, and, so far as four trials went, conclusive. I am bound to say the Yankee is right. "Queenless bees will accept readily any new-born queen presented to them;" and the question then occurred to me, What would be the fate of such a queen in a stock where there is already a queen? There is just light enough to try; so recovering the queen hatched over-night, although she has been with other bees, I withdrew a comb from a nucleus containing a queen, and put in the cripple. No animosity was shown by the workers. I then found the old queen and put her on the usurper's back. She showed no fight, but ran away, and the fading daylight prevented my again finding her, so I shut up the two queens together and left them. The next day I found the crippled queen on the ground before the hive weak but yet alive. I replaced her, but the following day she was again absent and I could not find her; probably she had been thrown out and crawled away.

I do not think I can recommend my "pocket incubator," so I shall not take out a patent for it. The air is too dry. Most of the pupæ died, and others came out with crippled wings. Where, however, the young queens are expected to emerge within a few hours the pocket will prove handy and safe, and I daresay I shall make use of it again for the same purpose. I fear my young queens have small chance of successful courtship. September is just at hand, and drones are very scarce; in one hive only have I any, and those are decreasing daily.

I had the curiosity to accurately weigh some bees, and found them to average—queens (at four hours old), 8.15 grains; drones, the same; workers, 1.25. It has struck me as curious that although I never hesitate to seize a queen with my fingers in the midst of her subjects, in no instance have I received a sting in the act, although numbers of bees often follow on my fingers. —JOHN HUNTER, *Baton Rise, Ealing.*

**CRYSTAL PALACE BEE SHOW.**—This will be on the 21st, 22nd and 23rd inst. The prizes offered by the British Bee-keepers' Association are liberal for varieties of bees capable for cultivation in England, as well as for hives and honey.

## OUR LETTER BOX.

**CANKER IN FOWLS (J. T. S.).**—The food you mention is not good enough to keep fowls in condition. There is not much in the way of food to be found in a timberyard, and sharps make but a bad breakfast. The best and cheapest way to feed is to give them slaked barleymeal or ground oats morning and evening, the house scraps at mid-day. Where birds are underfed they become weak, and are almost always attacked by some disease they have previously had, or their parents before them. The same weakness that allows it to appear prevents them from recovering. We should put all the birds that are suffering in a place by themselves. We should give to each a tablespoonful of castor oil. Feed on the barleymeal. You may slake it with strong beer for a few days. Dry all the causer thoroughly with a sponge, and dress it with powdered alum, being careful that it penetrates into the cracks. This generally cures it in a few days, but much depends on having the causer dry before the alum is applied.

**PARROTS FALLING FROM THEIR PERCHES (H.).**—Your birds are suffering from a nervous weakness, which is the cause of them falling from their perches. Parrots are very liable to the said accident, which is encouraged and brought about through being kept in a somewhat confined and warm temperature. The keeping of them in your bedroom to cure them is like pouring oil upon the fire to extinguish it. Remove the birds from the bedroom and occasionally (two or three times a-week) drench them with cold water from a watering-can, but do not repeat the shower-baths so frequently during cold winter months. After the bathing and during the time the feathers are wet spurt from your mouth a teaspoonful of brandy over the Parrot, after which throw a cloth over the cage and place it within 2 or 3 feet of the fire. When partly dry remove the cloth and hang the bird up. Accompanied with sound food this will tend to strengthen the birds. If you give your Parrots much meat partly discontinue it, for it produces laxity and weakness. Give bread soaked in milk, and a little ripe fruit just now.

**BIRMINGHAM SUMMER SHOW (W. C.).**—We have no information as to the third prize for Black Red Game pullets.

**CANARIES IN A GREENHOUSE (A Subscriber).**—As you have kept your Canaries in a greenhouse all the summer you may safely continue them there during the winter, especially as you state "provided frost was excluded." If you wish to remove them from the greenhouse do so at once, and then the birds will moult in the proper season; but if you keep them in the greenhouse (where they will moult, and probably may be doing so now) until Christmas or February and then remove them, you will tend to see being about a spring moult, and thus render your birds unfit for early breeding with. It is the changing of the birds from different positions into varying temperatures which brings about a looseness of feathers. These birds cannot be considered hardened but weak.

**DOGS AND BIRDS.**—On Tuesday August 31st I sent one of my best Partridge Cockerels to Bath in splendid condition. He returned to-day (September 4th) in a most deplorable state; one side of the breast was entirely gone and tied up with string; it was also nearly filled with feathers. The poor bird had suffered severely, as the whole of the feathers and even part of the skin and flesh had been torn from his back. Some of your readers may have noticed how he looked at the Show, as I believe the injuries were received on the journey to the Show. —CHARLES SKEWICK, *Bydlesden, Keyleigh.*

**TUMOUR ON RABBIT'S CHEEK (M. M.).**—A Guinea Pig dying suddenly and a Rabbit's face being swollen are not indications of a contagious disease. The Guinea Pig probably was overfed, and the Rabbit's face is attacked by a small tumour. Bathe it with hot water daily, and if matter is apparent open it with sharp-pointed scissors; wash the wound with tepid water, and then leave it to heal.

## METHEOLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.  
Lat. 51° 32' 40" N.; Long. 0° 9' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.					Rain.
1875.	Baromet. at 29° and Sea Level.	Hygromet- er.		Direction of Wind.	Temp. of air at 9 a.m.	Shade Tem- perature.		Radiation Temperature.				
Sept.		Dry.	Wet.			Max.	Min.	In sun.	On grass			
We. 1	Inches.	deg.	deg.	W.	deg.	deg.	deg.	deg.	In.			
Th. 2	30.398	69.0	64.9	W.	60.5	74.0	65.1	121.3	43.5			
Fri. 3	30.330	64.1	61.7	W.	62.1	74.4	65.5	117.0	52.6			
Fri. 3	30.013	63.0	60.4	E.	62.7	68.8	62.4	101.9	44.3	0.172		
Sat. 4	30.105	69.0	67.1	S.W.	60.8	71.0	49.8	150.0	45.6			
Sun. 5	30.321	68.8	67.8	S.W.	59.7	70.9	50.0	106.5	47.3			
Mo. 6	30.335	65.0	59.7	N.	61.0	75.0	48.0	112.3	45.2			
Tu. 7	30.184	64.5	61.0	S.E.	61.0	77.1	49.3	117.8	45.0	0.010		
Means	30.187	63.9	58.9		61.2	72.0	51.4	125.5	46.4	0.183		

## REMARKS.

- 1st.—A very beautiful and pleasant day, but cloudy at night.
  - 2nd.—Dull nearly all day, and cloudy at night.
  - 3rd.—Dull morning, soon turning to rain, showery till 1 P.M.; fine afternoon and evening.
  - 4th.—Fine all day, at times very bright; but cloudy at night.
  - 5th.—Fine at 9 A.M., alternate sun and shade, but on the whole a pleasant day; and starlit night.
  - 6th.—A very bright fine day, without being too warm.
  - 7th.—Fine early, rather hazy at nine, but very fine afterwards; fine sunset, but rather close in the evening.
- A pleasant week, particularly the latter part of it, being very bright without being hot. The temperature very nearly the same as last week, but that the range was rather greater. —G. J. SYMONS.

## COVENT GARDEN MARKET.—SEPTEMBER 8.

TRADE still keeps stagnant, and goods are only cleared by taking low offers. Of hothouse fruit the supply is quite equal to the demand, but prices of Grapes will mend as soon as the glut of Jersey produce is over. English Tomatoes have made their appearance, but the crop will be light this season.

## FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.	
Apples.....	½	0	to 1	6	Malberries.....	lb.	0	6	to 1	0
Apricots.....	dozen	0	6	2	Nectarines.....	dozen	1	0	8	0
Cherries.....	lb.	0	0	0	Oranges.....	½	100	12	0	20
Chestnuts.....	bushel	0	0	0	Peaches.....	dozen	1	0	12	0
Currents.....	½	0	0	0	Pears, kitchen.....	dozen	0	0	0	0
Black.....	do.	0	0	0	Pears, dessert.....	dozen	1	0	3	0
Figs.....	dozen	0	6	2	Fine Apples.....	lb.	0	8	0	0
Filberts.....	lb.	0	4	0	Plums.....	½	100	1	0	2
Gobs.....	lb.	0	4	0	Quinces.....	dozen	0	0	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	6	0	0
Grapes.....	lb.	0	8	15	Strawberries.....	lb.	0	0	0	0
Lemons.....	½	100	9	0	Walnuts.....	bushel	3	0	12	0
Melons.....	each	1	0	5	ditto.....	½	100	1	0	1

## VEGETABLES.

		s.	d.	s.	d.			s.	d.	s.	d.
Artichokes.....	dozen	8	0	to 6	0	Leeks.....	bunch	0	4	to 0	0
Asparagus.....	½ 100	0	0	0	0	Lettuce.....	dozen	0	6	1	0
French.....	bundle	0	0	0	0	Mushrooms.....	pottle	2	0	0	0
Beans, Kidney.....	½ sieve	1	0	2	6	Mustard & Cress.....	punnet	0	2	0	0
Broad.....	½ sieve	0	0	0	0	Onions.....	bushel	3	0	0	0
Beet, Red.....	dozen	2	0	4	0	Pickling.....	quart	0	6	0	0
Broccoli.....	bundle	0	9	1	0	Parsley..... doz.	bunches	2	0	4	0
Brussels Sprouts.....	½ sieve	0	0	0	0	Parasprouts.....	dozen	0	0	0	0
Cabbage.....	dozen	0	6	0	0	Pears.....	quart	1	0	1	0
Carrots.....	dozen	0	6	0	0	Potatoes.....	bushel	3	0	12	0
Cauliflower.....	½ 100	0	0	0	0	Radishes.....	do.	3	0	5	0
Celery.....	dozen	0	6	0	0	Radiishes..... doz.	bunches	1	0	1	0
Celery.....	bundle	1	6	2	0	Rhubarb.....	bundle	0	0	0	0
Coleworts..... doz.	bunches	2	0	4	0	Salsify.....	bundle	1	6	0	0
Cucumbers.....	each	0	8	1	0	Seersooners.....	bundle	1	0	0	0
Egg.....	pickling..... dozen	1	0	8	0	Shallots.....	basket	0	0	0	0
Endive.....	dozen	0	6	0	0	Spinach.....	lb.	0	6	0	0
Fennel.....	bunch	0	8	0	0	Spinach.....	bushel	3	0	0	0
Garlic.....	lb.	0	6	0	0	Tomatoes.....	dozen	3	0	0	0
Herbs.....	bunch	0	8	0	0	Turnips.....	bunch	0	4	0	0
Horseradish.....	bundle	4	0	0	0	Vegetable Marrows..... doz.	1	0	2	0	



## WEEKLY CALENDAR.

Day of Month.	Day of Week.	SEPTEMBER 16—22, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
16	TH	Edinburgh Show closes.	68.4	46.8	57.6	38	af 5	12	af 6	87	af 6	32	af 6	17	5 12	259
17	F		68.9	44.9	56.9	40	5	9	6	50	6	57	7	18	5 58	260
18	S	17 SUNDAY AFTER TRINITY.	68.2	46.5	57.4	41	5	7	6	5	7	25	9	19	5 55	261
19	SUN		67.8	45.8	56.8	43	5	5	6	28	7	57	10	20	6 16	262
20	M	Faber died, 1702.	68.0	44.0	56.0	44	5	2	6	56	7		after.	21	6 87	263
21	TU	Crystal Palace Apianian Exhibition opens.	66.4	45.6	56.0	46	5	0	6	39	8	52	1	22	6 58	264
22	W	Long Sutton Show.	66.4	44.7	55.6	48	5	58	5	40	9	2	8	(	7 19	265

From observations taken near London during forty-three years, the average day temperature of the week is 57.6°; and its night temperature 45.4°.

## TRAINING HARDY FRUIT TREES.



INCE the introduction of orchard houses and similar structures I am afraid that the cultivation of hardy fruits has gone backward; it is a great pity if such is the case, and I would advise young gardeners to look themselves up a little in this matter, for their employers sooner or later will surely make a demand in this direction. Orchard houses are very useful structures, and to the amateur who can attend to them himself I believe they bring health, strength, and length of days; they create a taste for the purest pleasures of this life, and produce an abundance of the most harmless of luxuries. But let not the professional gardener think that orchard houses will supersede the use of garden walls, and that because he has one or two of these structures he can afford to look disdainfully on outdoor fruits. I should require some acres of orchard houses to meet my demands, and by experience I know that the produce of orchard houses is comparatively nothing in return for labour as compared with the labour and produce of well-managed outdoor trees. Moreover, though some of the fruit from the orchard house may be superior to that grown outside, the greater portion is vastly inferior. This is specially the case with Peaches and Nectarines when grown in bush form; for unless these fruits have the full sunlight on them through the whole period of their growth they are never fit to eat. For this reason, for indoor culture, the system of flat training is vastly superior to training as bushes. By well-managed outdoor trees I do not mean those trained in the most artistic forms—they are mere playthings for those people who have no better occupations—but those trained in such a manner as to produce the greatest quantity of good fruit in the shortest time. The man who would spend several years in training his trees to fancy shapes, and produce little or no fruit, looking on fruit-producing, in fact, as a secondary affair, is more fit to be a milliner than a gardener.

I believe it was Loudon who said that a man would never make a gardener who was afraid to use the knife. Things have changed since Loudon's time, and the best modern gardeners do not use a knife once where Loudon's contemporaries would have cut away wagonloads. And yet there is room for more improvement in this direction. The average British gardener has still too much liking for a good knife; he still likes to allow his trees to waste their energies by making a great quantity of useless wood to be afterwards cut away. If he buys trained trees for walls he must cut them back for a year or two in the hope of getting them into some perfect form as drawn out for him in gardening books. He may cut and he may hope, he will never realise the picture; such trees only exist on paper, and it is as well to acknowledge the fact at the outset, and make up our minds, instead of attempting impossibilities, to have the wall covered in two or three years and a good crop of fruit on it.

No. 755.—VOL. XXIX, NEW SERIES.

Fairly-trained trees of Plums and Cherries, and also Peaches and Apricots where these do well, need no cutting back at all when received from the nursery, unless the wood is not ripened, and in that case they are hardly worth having. Planted in November, and encouraged to grow in the following summer by disbudding where the shoots are not required, and training-in at full length wherever there is space to be filled—never minding whether they are laterals or main shoots, they all answer the purpose alike—average trees will always fill a wall in three or four years, and often a good quantity of fruit can be obtained the second year after planting. If the trees are at all vigorous it does them good to fruit them, but fruit should not be left on any that are weakly.

The Green Gage and Jefferson Plums will often bear nicely the second season after planting, as will also the Morello Cherry.

All wall trees require disbudding in their young stage, for having been trained in the open ground with light alike all round them, they at first make as many buds on the side next the wall as they do on the front side. Those buds next the wall if not carefully removed are sure to produce injurious results. For laying-in at full length preference should be given to those shoots produced on the upper side of the main branches; those, however, on the lower side will do nearly as well, and must be used when the space cannot otherwise be filled. Those shoots which are inclined to grow straight out from the wall should generally be kept hard pinched, and if they do not fruit they will at least shade the stems and encourage their development.—WILLIAM TAYLOR.

## TAKING-UP AND STORING POTATOES.

I AM afraid that I cannot give "BETA" the precise information he needs as to "when, how, and at what stage of growth the haulms can be pulled away from Potatoes without affecting the flavour and value of the tubers." This is a matter which it is impossible to make clear on paper in a way to suit all growers and circumstances. In my previous letter the question of pulling off the haulm was subsidiary, my primary object being to sound a note of alarm on the danger of too thickly storing newly-dug tubers.

When I speak of removing the haulm from a crop to prevent the disease, I mean that I would as soon take up the crop itself if I had time to do so before the dreaded heavy summer and autumn rains. That presupposes the tubers to have attained a useful size. I take them up or stop their growth before then is wasteful and to leave them longer, if heavy rains and close, warm, muggy weather is pending, is often ruin. In the matter of garden crops, and except for purposes of experiment, I have not had any diseased Potatoes for nearly twenty years. By growing not late varieties and continued watchfulness I feel myself quite competent to evade the murrain.

It is seldom that injury is done to a crop until the Potato plant has just passed the zenith of its vigour. If,

No. 1407.—VOL. LIV, OLD SERIES.

after that, heavy rains fall accompanied by a high temperature, disease is almost certain to follow. A rising thermometer and a falling barometer, with a glance at the telegraphic weather reports, have always afforded me timely notice of danger. When I once decide that action must be taken the work of taking up the crop or removing the haulm is prompt. I prefer to take up the crop if I have convenience for thinly storing the tubers, but if this convenience is not afforded I prefer to remove the haulm and let the produce rest thinly in the ground until a suitable time for storing.

My experience has told me that the disease seldom sets in until early and moderately early kinds have attained to nearly their full size; and when that is the case, and when a change in the weather is imminent, I take up the crop, or if time fails for this I remove the haulm, and in either case the produce is quite safe. If I cannot find an airy place to store the tubers I prefer to let them remain in the ground to set their skins.

"BETA's" "well-known fact" that the tubers are "useless for culinary purposes if the haulm is removed before the latter are ripe" is, fortunately, not a fact with me and others who have adopted the practice. I can submit Potatoes of many sacks of Paterson's Victorias which have been taken up some weeks which will equal in quality any Potatoes of the same variety which have been left in the ground to ripen. What is a fact is this—that Potatoes when taken out of the ground in an unripe state are "sad" when cooked immediately, but they eventually ripen (taking longer to do so, however, than if left in the ground to mature naturally), and are ultimately perfect in quality. How this partly skinless produce obtain new skins or their watery bulk is changed to starch I know not, but such is the fact if the tubers are stored thinly in a cool, dry, and airy place.

In the great disease year of 1872 my employer, knowing the constant immunity from disease of his garden-ground Potatoes, deputed me to make experiments in the field. The first day's haulm-pulling (two acres) was a success. On that part there were no bad tubers. In the afternoon rain fell, continuing for two days with a mean temperature of 75°. The haulm which was removed after the rain was labour lost, for the tubers became extensively diseased. Tubers, unripe and stored thickly, did not ripen, but remained "sad" for an indefinite time; those which were stored thinly in a dry airy place matured into produce of perfect quality. The produce of an infected crop taken up and stored in large heaps rotted to the extent of four sacks out of five. Another portion of the same crop left in the ground to "take its chance," and not dug until the end of November, was of fourfold greater value. Potatoes are commonly heaped large and small, good and bad, promiscuously, to "save time" and to be "sorted," it may be a month afterwards. The practice ends in both loss of time and produce. When spread on the ground at digging time is the rational time to "sort." Let careful people pick the best and anybody follow with the refuse, and although a little more time is taken in securing the crop, both time and produce are in the end saved. Store dry if possible, store thinly, store cool.

If the bulk is too large or convenience too limited for thin storing wait until cool weather sets in before storing thickly. It is not the thick heaps, as such, that engender the violent spread of disease, but the heating of such heaps. The fungus will germinate and spread with immense rapidity at a temperature of 75°, but at 50° the spread is not nearly so rapid, and at 40° it is about nil. Under any temperature moisture is an assistance to the fungus growth. Therefore it is that I repeat, Store dry, store thinly, store cool.

Thousands of tons of produce have been ruined by storing too early and too thickly—that is, by producing a close, heated, humid atmosphere in the heaps, and providing the very conditions in which the fungus luxuriates. Rather than do this I prefer to let the tubers rest in the ground in their simple natural isolation, and I am a gainer by the apparent delay. If the haulm is removed before the fungus spores have germinated the crop is absolutely safe, and if the haulm is not removed the crop is safer than if thrown together in large heaps in a moist state in warm weather.

I do not perceive the necessity of removing the haulm from late crops at this date, because I do not apprehend that a high temperature will accompany a possible fall of rain. It is the combined action of heat and moisture that fosters the spread of the murrain so disastrously; the action of either, if alone, working little if any injury.

I am afraid "BETA" will be again dissatisfied with my remarks, but I feel conscious of my inability to lay down a line

of guidance whereby the disease can be averted by all growers and under varying circumstances. Even if I were cognisant of these circumstances I might fail, and being ignorant of them my power to aid is infinitely lessened. I can only aid by giving my experience and its results, with the reasons for adopting a given mode of practice. The rest must be left to the intelligence of growers, of which I opine that "BETA" possesses a fair share.—YORKSHIREMAN.

## STRAWBERRY CULTURE.

STRAWBERRY cultivation seems to be a subject of no little interest to numerous readers, judging by the many letters of inquiry I have had since the publication of my letter of August 26th.

It seems to be quite the exception to many growers to obtain anything more than a very poor crop of fruit the first year after planting; I am therefore induced to give the details of my way of growing a crop of fine large fruit on first-year plants. Strawberries are grown better in quality, larger in size, and more independent of the season, on first-year plants than at any other time during the three or four years they usually are grown. My land is very light, and not what is considered good Strawberry soil, and I find that I can grow more fruit the first season than I can (on many sorts) by letting them fruit the third year.

I always chose land that has grown Potatoes as the previous crop in preference to any other crop, for the land is, after Potatoes, at liberty in good time, and is left in a nice mealy condition, free from slugs and other enemies to ripe fruit. On the contrary, planting after a crop of Cabbages you follow a very exhausting crop, the land often lacks moisture, and the fruit when ripe is attacked by a host of slugs which have established themselves during the time Cabbages were growing on the land.

Deep cultivation I always give my land, but a caution is here necessary. I never new trench land without having at least one year previously subsoiled it. Trench some land, and turn to the top a raw, harsh, and hungry subsoil, and you need not be surprised if the crop next following sorely disappoints the hopes of the cultivator. I have tried it on a large scale, a field at a time, with the plough, ploughing 8 or 10 inches on land that had only been used to 4 inches deep; and I have tried it with the fork in scores of instances, and the result has always been the same—hopes disappointed, a poor crop, and deep cultivation discredited. But I am wiser now if not richer for the experience I have gained during a period of nearly twenty years. I am still as great an advocate for deep cultivation as ever, and I either trench or subsoil for every crop I grow. As my land is in good heart I do not use any manure at the time of planting.

Having the land well cultivated I always wait for a good rain to thoroughly moisten the soil from top to bottom. I would rather wait a month than plant in dry soil and a hot scorching sun. In this matter it is indeed true that "patience is a virtue." If you are in a hurry to plant you will perhaps find out that "more haste less speed." I think September quite as good a month to plant in as either July or August, minding only to have good plants to plant. In September you have a better choice of situation, as many of the summer crops are ready to remove, and the cooler days and long dewy nights are much more favourable to planting than during either July or August. I plant in rows 30 by 15 inches, and the second year taking out every other plant, leaving them 30 by 30 inches for the second and third year's crop. As stated in my last my plants are raised in nursery beds, and are carefully removed, each with a mass of rootlets and soil, and to see them at the week's end you would hardly believe that they had been planted so short a time. I have my runners struck in June. I see by reference to my note-book that I began planting them in the nursery bed on the 30th of June this year. I strike my runners in each alternate row of first-year plants, gathering the fruit from every other row, and allowing no person to set a foot on the row where the runners are striking. I only allow four or six runners to a plant, taking the others away as fast as they make their appearance. After my bed is planted I keep the hoe constantly going among the plants, hoeing them over if possible at least once a week, yet never going on to the land when it is wet. It is surprising how fast they grow, and by the middle of October they look like plants a twelvemonth old.

Early in March, or as soon as the land is dry enough, having hoed them over two or three times, I give them their mulching

of rich horse or pig manure, two or three barrowful to a row of thirty plants. When the plants are commencing to bloom I bed on top of the manure with clean fresh wheat straw, completely covering the whole of the land, but minding not to cover or bury any of the leaves or flower stems. The rain and the worms flatten and fasten the straw down in a few days, and then I can go and gather splendid fruit in almost any weather.

I feel I should not be doing justice were I to close this letter without saying a word in honour of a most useful assistant I have, who takes care that no birds come and help themselves to my fine fruit. What more provoking than when you have been at all the trouble and expense to grow fine fruit up to within a day or two of its being ripe, for a set of impudent and voracious blackbirds and thrushes to come and devour and mutilate your crop? This is unbearable. The secret of my immunity from such intolerable thieves is a fine tom cat brought up in the garden from a kitten, who spends his time day and night, who has a house (a portable one) in the centre of the bed, containing sitting-room and bedroom, and a dining-room and observatory on the roof, who eats, drinks, and sleeps in his house, and during the greater part of the day prowls and stretches among the Strawberries in all sorts of strange positions—a most hideous sight to the eyes of the birds. I do not think I lost half a dozen Strawberries this season from birds, though at times I had stones of ripe fruit on the plants. Is he not worthy of honourable mention in connection with my success as a Strawberry-grower?

A few words more and I finish. I am a lover of birds—in fact of all living things, whether plants or animals, and I never destroy a bird. It is nearly twenty years since I last shot a sparrow, and as it dropped dead at my feet from the roof of the house, its beak loaded with earwigs (I counted eight), I felt that I had shot one of my friends, and determined to shoot no more.—W. LOVEY, Weaverthorpe, Yorks.

#### RAISING BLUE LOBELIAS.

For bright marginal lines of colour few plants are more popular than Lobelias. They are used in all gardens where flowers are cherished in the form of bedding plants. The plants are raised from cuttings and seed. The seed is generally sown in heat in spring, and the young plants grown on rapidly until May; but plants equally good may be produced with less care and scarcely any heat by sowing the seed now. Hundreds of amateurs have a greenhouse or cold frame who have not a hotbed or stove. Such should always sow seed of Lobelias in September, and they will have plants in May in all points equal to those of their neighbours who raise the plants in heat in spring and grow them on quickly.

The seed should be sown in rich light soil and be covered very slightly, and the pot or box should be placed in a shaded place outdoors until the seedlings appear. The soil should never be dry; and to prevent this water thoroughly before sowing the seed, and cover with squares of glass to arrest evaporation. The seed should be sown thinly, and the pans may be wintered in a frame from which frost is excluded, or in a light place in the greenhouse. The plants will be ready for pricking-out in March, and will be in fine condition for planting in May.

Thus may those who have no heated structures in spring raise their Lobelias.—AMATEUR.

#### WHICH IS THE BEST WAY TO TRAIN OUTDOOR PEACH TREES?

MR. TAYLOR'S interesting paper on this subject contains much useful matter, not only in its explanation of the details of a praiseworthy effort to overcome the difficulties arising from an ungenial soil and climate, but also because it—involuntary as I think—shows that there are rocks and breakers ahead, and that there are blemishes and imperfections attendant upon every method of the culture of these particularly sensitive exotics upon open walls.

The special merit of cordons undoubtedly consists in the facility with which by their aid walls may be covered, the quickness with which fruit may be obtained, and the ease with which failing trees may be replaced. So far I agree with Mr. Taylor, but I am totally at variance with him when he claims for cordons superiority over fan-trained trees in greater freedom from the attacks of blight or disease, the superiority

of fruit, the ripening of the wood, or even in covering the walls more quickly.

Before proceeding to discuss these points in detail it may be well to state that I, too, am cultivating these fruits under considerable disadvantages, such as a poor thin soil and a climate which, when I came into Sussex, was described to be by a very high authority in fruit culture as so ungenial as to render Peach culture in the open air a very difficult and doubtful matter. This was a kind and valuable hint, inducing an extra amount of caution and care in the preparation of the soil, and the planting and after-management of the trees. How I have succeeded must be left for others to tell, it being sufficient for my purpose to state that I have ample reason to feel contented with the condition in health, vigour, and fruitfulness of a goodly number of Peach and Nectarine trees, embracing kinds new and old, and all kept strictly to the dwarf fan form.

Let us now turn our attention to a consideration of certain important points of culture, not by any means for the sake of gaining advantage in argument, but solely for the advancement of science and the assistance of others.

1. *Freedom from Blight or Disease.*—In thinking how this may be effected the mind immediately reverts to its cause. Close observation leads me to conclude that gumming and canker arise from some injury which the bark has previously sustained. An untimely frost or day of hot scorching sunshine may inflict scalds and blisters upon the sensitive outside that in its young state is almost as delicate as the petals of a flower, and which, though unseen and perchance unsuspected at the time of its infliction, is none the less deadly and sure in its subsequent effects. The best remedy for this evil is a permanent coping board to give shelter from hailstorms and frost, and an abundant clothing of healthy foliage to protect the young bark till it becomes matured and toughened. Bruises from the trainer's hammer, tight shreds, nails driven so close to the wood that the corners inflict an immediate scar, or the ensuing season's growth swelling around the nail inevitably sustaining injury on its removal—are all causes of a diseased and perhaps ruined tree. It is evident that in this matter a gardener is very much at the mercy of his assistants; no supervision, however constant and close it may be, will avail to remedy or prevent its occurrence. Let me appeal to young men to remember this, and to assure them that the trainer's hammer and the work it does is of equal importance as the operation of the master's knife. Be honest in what you do, and strive to preserve the branches, which you train so beautifully, intact from harm at your hands. It is only bunglers who are clumsy with their tools, but I very much fear bunglers are in the majority, for I will not let myself suppose that any really earnest person could inflict injury through carelessness.

2. *Superiority or Abundance of Fruit.*—This, after all, is the crucial test. Let your trees grow wild as a Bramble bush, or be trained to the formality of a model, I care not for one form more than another; only prove that you can produce annually the greatest quantity of first-class fruit in a given space, and I will gladly yield you the palm and become your disciple. Now I have seen the "standard" Peaches at Chilwell, the cordons at Chiswick—single and double cordons—standards and pyramids in numerous other gardens, many of them laden with good fruit, but I am bound to state without the slightest reservation that none of them are at all equal to a good fan-trained tree in the quantity, and very few in the size and quality of fruit. Nor are fan-trained trees at all behindhand in earliness of cropping. I happen to have planted a few Peaches and Nectarines on January 30th, 1873, the same season as Mr. Taylor planted his first batch of cordons, and I have no hesitation in saying that for vigour of growth, condition, and quality of the wood itself, and the excellence of the fruit which they have borne, no cordons that I have ever met with are to be compared to them. Take for example an Early Rivers Peach having a lateral spread of 18 feet, and which is fully 10 feet high. But then my mode of planting and culture is also a little out of the old groove. The greatest possible care is bestowed upon the preparation of the stations; soil of a good sound staple, rich rather than poor, is provided, and even a little manure is added to that, into which the roots are expected to penetrate in the first season of growth. Great freedom of growth is encouraged, every strong shoot and lateral being laid in wherever space admits of its being done with advantage, weakly shoots and all useless growth being removed as soon as possible; by which means anything approaching to "severe mutilation" is avoided, and the winter pruning,

resolves itself more into a shortening and balancing of strong growths, and a moderate thinning of crowded shoots, than a hacking and hewing by line and rule.

8. *Ripening or Maturing of the Wood in Autumn.*—This is always done thoroughly well by the aid of the permanent wooden coping, which not only protects the wood from early frosts, but, acting as a reflector, helps to retain heat in the walls, and also by the reflection of the heat given off by the wall promotes the play of a genial temperature upon the wood. The foliage is removed as fast as its hold upon the branches becomes loosened; no branches are unfastened, and not a nail or shred removed till the time of winter pruning, which occurs early in February.

I may add that the land near the Peach walls is well drained, although not cold and heavy, and in every instance before proceeding to plant such trees in the open air due care should be taken to thoroughly drain the entire garden, not only to prevent the accumulation of stagnant water, but to elevate the temperature of the soil, and consequently that of the air, as much as possible. No doubt Mr. Taylor has given due attention to this important matter, but it is nevertheless one which must not lightly be passed over here, for I am well acquainted with more than one large garden from whence come frequent complaints of the ravages of frosts, and yet the value and importance of drainage apparently remains ignored or misunderstood.—EDWARD LUCKHURST.

## TWO PEEPS INTO A ROSE AND CLEMATIS GARDEN IN BATH.

### PREFACE.

THERE must perforce be two peeps, because the Rose and Clematis bloom at different times.

#### PEEP THE FIRST.

Two notices by my pen of Mr. Ambrose Awdry's extensive and beautifully kept rosery at Seend, Wilts, appeared some years since in this Journal—viz., in August, 1866, and again in August, 1869. Since then Mr. Awdry, owing to the continuous delicate health of a member of his family, has been obliged to live entirely in Bath. The Seend rosery has disappeared—it has not for the last six years been a garden, but a field; its glories gone, it is but as other green fields, or it may be, for I know not, as I have never seen it, that

"Where once the garden smiled  
Still many a garden flower grows wild."

Howsoever it be, the Seend rosery is but a bright memory and no more; but a man who really and enthusiastically loves anything never gives up—he is never daunted. There was a charming series of papers written years ago by "D., Deal," among the very best he ever wrote, well worthy of a reprint, which appeared, I think, in the "*Florist and Pomologist*," edited then by Robert Hogg and John Spencer, describing his gardening difficulties in his curate days, especially how he cultivated his beloved "florist flowers" when neither soil nor situation was favourable; how from this place to that place he went, still carrying with him flower taste and determination to cultivate it whatever might oppose. So of Mr. Awdry; cut off from the pleasure of a large country garden, he determined to make and enjoy one in town. Sometimes a town-dweller hires a garden with the chief object—quietly kept from his wife, by the way, of having a place for him to meet his cronies in, and that snug arbour in the corner is more prized than anything else—that arbour where day after day

"The scent of the 'hacca' it hangs round it still."

Sometimes a town garden is hired—good purposes these—for the benefit of having fresh vegetables and the healthy exercise caused by their cultivation. But if people have had a good country garden, unless they are thoroughly enthusiastic, when they come to live in town they content themselves with talking, when a peg too low, about the happiness they used to have in their garden; but that happiness is a past thing.

Mr. Awdry lives in historic Pulteney Street, one of the finest streets in England, which one seldom passes through without thinking of good old King George III. and the late Emperor Napoleon, both of whom lived in it, and its name commemorates a statesman of George I.'s reign, now forgotten save from this street. Such is the fate of statesmen—in all men's mouths while living, but when dead remembered only by two rows of houses! Mr. Awdry has fortunately been able to secure a garden within five minutes' walk of his house, which I find on the morning of 29th of June to be just a stroll from

the back of Pulteney Street past or through Henrietta Park, a sort of grassy square where some schoolboys have their cricket field, and around which are neat villas; turning along Henrietta Road I am at the garden—at least a door in a wall leading to it; a moment more I am inside, and before me a blaze of Roses. The size of the garden is about half an acre, and it is narrow, its width being much less than its length. Its situation, shut in entirely from the road, is, as seen from the inside, very pretty. The old parish church of Bathwick, long since disused, is on one side with its Willows and cemetery. The cemetery, Mr. Awdry tells me, he finds an excellent neighbour, as no thieves will cross a graveyard, and the whole garden is catproof—thiefproof and catproof, almost equal blessings to a gardener. Above, at one end, but at a considerable distance, is Camden Crescent (what a pretty shape is a crescent when you can see the whole of it at once); at the other end, a long way off up the hill, is Sham Castle. All who know Bath know it has a girdle of hills around it, and Sham Castle is on one.

On looking before me I see the plan of the garden. At the end at which I enter are twenty-four small oblong beds on grass for bedding plants chiefly. These occupy but a small space, still the green of the grass as you look along it to the Roses beyond, is in capital taste. Around the garden is a walk, with at equal distances wire arches. Down the middle is another walk and other arches, and a wire dome of some size. Then around the fence is high. Arches, dome, fence chiefly for growing the new varieties of the Clematis, the ground for Roses. No potting-shed, no compost-heap, or anything of the kind is visible, all screened off, the whole garden a fair show with nothing to take the eye from the rich display of floral beauty. I should add, that in addition to Roses and Clematis, Mr. Awdry cultivates Strawberries to much perfection.

Among the Roses that have done best this year here are La France, John Hopper, Mme. La Baronne de Rothschild, Eugène Verdier, and Duke of Edinburgh. The Duchess of Edinburgh has not done so well. Paul Neron, that huge Rose, has done well; so has Eugène Verdier and Charles Lefebvre, also the Countess of Oxford. Bath is a good climate as we all know, and this year so favourable to growth, all Roses have made good wood. Baron Gonella always does well in Mr. Awdry's garden, but not so many others until this year. All the Roses are grown either on their own roots or on the Manetti. Walking among and looking down into Roses is such an advantage. For instance: so best you see that neat and trim but not too vigorous Rose, Madame Vidot. It is pleasant to see a whole place pretty, and all—every foot used, with no spare bald places. There were in addition some grand pillar Roses standing-up in their glory.

I may just mention that the Strawberries found to suit best are President, Cookscomb, Sir Harry, Sir Charles Napier, and Dr. Hogg. Of these I can say that their flavour was admirable. Walking through the Roses, examining choice blooms, taking general views of the garden from different points passed the time away pleasantly until the time to spare was gone, and I passed out of the door and the pretty garden was seen no more. "Now," said Mr. Awdry, "you must come and have a second peep at my garden when the Clematises are out."

#### PEEP THE SECOND.

Now, August 27th.—Again I enter, and what a change of floral beauty. The Roses are gone save here and there a few blooms. No more Baroness Rothschild, which somehow will catch the eye more than any other Rose. The twenty-four beds on grass as you enter are now bright with Asters, French and German; also dwarf Victoria Asters, which bear looking into. How different are the French and German Asters! the former showy in the extreme, the latter neat in the extreme, particularly those having a white centre. The other beds are ablaze with Verbenas and Calceolarias. Of course, the great difference I see in this garden since my first peep is that the boards around, the arches over, and the wired dome, a very conspicuous object, are now bright with Clematis. As yet certainly the general colour of different varieties of the Clematis is, well—purple or violet. Upon a near inspection one sees differences, but at a distance they resemble each other, save that here and there is a white. What is wanted is another decided colour, a crimson or an orange; but while saying this I am far from depreciating what as yet we have. Then, again, what a gain it is to have a perfectly hardy flower, vigorous in growth, abundant in bloom, and the blooms very large, and

coming at a time when so much wanted. The Clematis is such a showy flower, such a contrast to the Passion-Flower, which must be looked into; but does it not reward us for that close in-look? yet it can never make a gay garden. Mr. Awdry's garden was just as gay in August with Clematis as in June with Roses. Of course there was Jackman with its violet purple flowers; Lady Caroline Neville, French white; Jeanne d'Arc, greyish white; Otto Frobel, the best of all the whites; Gem, lavender; Star of India, which on a near look has reddish bars; William Kennet, Tunbridgensis, lavender and mauve; Alexandra, reddish violet; while Mrs. James Bate-man has pale lavender charms, and many others. Here and there a wandering Clematis had caught and clasped round a spray of Rose.

My readers can well imagine how the empty high black boards became changed into a Clematis wall, and how wire arches and wire dome became Clematis arches and Clematis dome. Mr. Awdry has various plans for covering his boundary fences. Thus where neither Rose nor Clematis does well, he has the double-blossomed Syringa. Then he indulges in a lesser way with another love—viz., Pompon Dahlias, which being small enough for a buttonhole or a bouquet, are Dahlias from which all coarseness is gone completely.

Such is a brief account of this interesting and very gay garden. What a good thing it is when a man can make a garden his hobby. Scarcely any other so much promotes health or gives so much pleasure; while, perhaps, it gives more pleasure to others and to a greater number than any hobby whatsoever.

How in such a sweetly quiet garden as this a man may banish his cares, and get more power to bear them, for a garden refreshes the spirits. "Happy," said the poet Gray, "are they who can ere ate a Rose or erect a Honeysuckle." Says Archbishop Saneroft of his garden in Suffolk, "I trust no other hand but my own to do the nicer work, so long, at least, as my health will allow me to enjoy so pleasing an occupation; and, in good sooth, the fruits taste more sweet and the flowers have a richer perfume than they had at Lambeth." And as these felt so others may and do feel; and I think, as in poultry, a man is more successful if he sticks to a few varieties, so in gardening. Thus, for instance, as in this case of Mr. Awdry and his culture of the Rose and Clematis.—WILTSHIRE RECTOR.

## GREAT INTERNATIONAL FRUIT AND FLOWER SHOW.

EDINBURGH, SEPTEMBER 15TH.

[SPECIAL TELEGRAM.]

It asked, What has contributed to the success of this great Exhibition of garden products? we must not look for an answer only to able management, business enterprise, and cultural skill, nor to natural advantages of site, soil, and climatic influences, but also and especially to national feeling—Scots strive to have Scotland in the front; they succeed, and especially in aiding the soil to yield superior examples of the most useful of all luxuries—fruit. The national aims in fruit culture are worthily ambitious. The standard of perfection is a high one, and as each grower is emulous of another's fame this standard is aimed at by all, and is attained by not a few. The Exhibition, therefore, which is now being held in the Music Hall and Assembly Rooms is an expression of the united efforts of an united people, spread in one of the most beautiful cities of Europe in a manner by which not only the city may be satisfied, but of which the United Kingdom may be proud. Neither are these results achieved alone by the growers of the fruit, but they are aided by the owners, who in not a few instances have permitted that preparations should be made for a great endeavour involving, if needful, an immediate sacrifice for the realisation of an ultimate triumph. Gardeners, wherever situated, who are continually working under high pressure in providing to the utmost for consumptive demands—who are ever striving to produce a maximum quantity combined with fair quality, may be dissatisfied with their efforts in comparison with the high-class productions specially grown and provided for a great occasion. But they need not be. Owners who annually tax the powers of their trees, and Vines, and men to the utmost for their daily wants may deem their produce of immoderate quality as judged by the splendid prize fruit which is here exhibited. But they should not so judge, for it were as fair to compare the speed of their hacks and carriage horses with that of the specially prepared and thoroughly trained racers. It does not detract in the slightest degree from the skill of the cultivators of the fine fruit which we are now noticing to remember that much of it has been specially prepared for a specific object. In the matter of Grapes, for instance, it is not to be disputed that on both sides of the Tweed old Vines have been reared for a con-

centration of their resources for a given time and purpose, and new Vines have been planted with special calculations that they should attain their first flush of vigour at the time of this great Show. That these Vines have done what was expected of them sufficiently attests the skill of the growers, and also, it may be said, the patriotism of their owners. Both have been laudably jealous of the fame of the fruit-producing powers of their districts, and hence the gratifying results of a combination of will on the part of the masters, and skill on the part of the men.

This Show is great in aims, objects, and results. The schedule is comprehensive, the prizes liberal, and the management of the most practical kind. Almost all ranks and classes have cast their mites into the common treasury, and the result is that the noble sum of £700 is provided for prizes. Fruit is divided into four divisions of ninety-five classes, and the plants, &c., into a similar number of divisions and fifty-three classes, making a total of 148 classes, besides special prizes offered by Messrs. Sutton & Sons, Reading; Mr. Munro, Potters Bar, London; and Scottish patrons. The schedule is in many respects a counterpart of that of the Alexandra Palace Fruit Show, but with important additions and a sensible increase in the amounts of the prizes in some of the divisions. For collections of fruit the amount offered is £86, for Pines £27, and for Grapes (Scotland is a land o' Grapes as well as a land o' cakes) £168; for foreign competitors £120, with minor prizes for other products. Liberal prizes were also awarded for plants and flowers, the most noticeable being £25 for ten stove and greenhouse plants, and £18 for six plants in flower. For most of the prizes there was good competition, and some admirable examples of culture were staged. The Grapes, as may be expected, were the finest feature of the Show, and the weights of the large bunches were scanned with the greatest interest. We announce at the earliest possible moment the successful exhibitors of this important Exhibition, reserving to our next issue a more complete and detailed report of the gathering. Our northern friends sustained their reputation for the hospitality and friendliness which they invariably extend to all visitors.

As an instance of the energy and promptitude of the Committee in completing the arrangements of the Show the staging was done during the night, in order that the Judges could commence their duties at 8 a.m. this (Wednesday) morning. The principal awards were as follows:—

Some prizes of the greatest and best fruit Exhibition ever held. First comes the battle of the giants. Noble contest. Unparalleled achievements. In White Grapes Mr. Curror, Eskbank, is first with Calabrian Raisin, weighing 26 lbs. 1 oz.; Mr. Dickson, Arkleton, second with Syrian, weighing 25 lbs. 10 oss. These are honest well-shaped bunches with good berries, Mr. Dickson being the largest, but has lost by over-thinning; it is 8 feet in circumference and 2½ feet long.

For heaviest Blacks Mr. Hunter, Lambton Castle, is first with a seedling from Gros Guillaume, weighing 14 lbs. 11 oss.; Mr. Dickson being second with Black Hamburg, weighing 9 lbs. 8 oss. For light varieties of Grapes Mr. Hunter, Lambton Castle, Mr. Johnston, Glamis Castle, and Mr. Reid, Rockfield, stand in the order named with grand collections.

For four varieties Mr. Landen, The Quints, Salop, Mr. Bruce, Chorlton, Manchester, and Mr. Whytock are the winners. For two Black Hamburgs Mr. Johnstone, Mr. Jones, Wynyard Park, and Mr. Fraser, Stobo, are successful.

For Muscat Hamburgs Mr. Dickson, Mount Melville, is first, and Mr. Spiers, Golgarburn, second. For Madresfield Court Mr. Bruce is first; Mr. Potts, Manley Hall, Manchester, second; and third, Mr. Fraser. For Black Alicante (grand), first, Mr. Hunter; second, Mr. McConnochie, Cameron House; and third, Mr. Curror. For Gros Colman Mr. Upjohn, Worsley Hall, is first, and Mr. Jones, Wynyard, second. For Lady Downes' Mr. Greig, Craigend, is first; Mr. Fraser, Raohan, second; and Mr. Reid, Rockfield, third. For any other black variety Mr. Stewart, Innerleithen (Black Prince), is first; second, Mr. Hunter (Seacliffe Black); and third, Mr. Bruce, Chorlton (Gros Guillaume).

For two Muscat of Alexandria Mr. Johnstone is first, Mr. Stewart second, and Mr. McConnochie third; and for any other White Mr. Curror (Calabrian Raisin, 10 lbs.), is first, Mr. Greig (Buckland Sweetwater) is second, and Mr. Jones (Trebiano) third. For single bunches of Black Hamburg the winners are Mr. Jones; Mr. Goldie, Trochrague; and Mr. Hannah, Burnhead. For Alicante Mr. Fraser, Raohan House, is first; Mr. Hannah second, and Mr. Curror third. For Muscat of Alexandria, Mr. Stewart and Mr. Greig. For best-flavoured Black, Mr. Dickson, Mount Melville (Muscat Hamburg), and Mr. Jones (Black Prince). For Whites (flavour), Mr. Methven, Blytheswood, and Mr. Greig. For finest bloom, Mr. Curror with Alicante. For best basket of Black, Mr. Brown, Kilmarnock, and Mr. Service, Dumfries. White, Mr. Bruce, Chorlton.

In Division 2, for two bunches of Black Hamburg, Mr. E. Grossar, Ireland; and Mr. Stalker, St. Roque. For Alicante, Mr. Goodhall, Donisla House, and Mr. Dempster, Edinburgh. For Lady Downes', Mr. Brunton and Mr. Stalker. For Muscat of Alexandria, Mr. Goodhall and Mr. Stalker. For Alicante,



Mr. Goodhall and Mr. Simpson, Wortley. For single bunches of Lady Downes', Mr. Brunton and Mr. McIntyre, Kingmuir. For Muscat of Alexandria, Mr. Goodhall and Mr. Stalker; and for any other Black, Mr. Brunton and Mr. McIntyre.

For the silver cup offered by James Boyd & Sons for six varieties are three splendid collections, Mr. Stewart, Innerleithen, being successful. The Grapes, of which there are about 450 bunches, are a grand exhibition in themselves. For collections of fruit (sixteen varieties), the winners are Mr. Johnson, Mr. Stewart, and Mr. Ingram, Alnwick Castle. Twelve varieties, Mr. Upjohn, first; Mr. Dickson, Mount Melville, second; and Mr. Cooke, Holeyn Hall, third. Twelve varieties, Mr. Robertson and Mr. Shand are successful. These collections are very fine.

Peaches are an admirable display of (for twelve), twenty-six competitors. The winners are Mr. Leyden, Whitehill; Mr. Donald, Kinfauns Castle; Mr. Brown, Birkwood, and Mr. Jack, Battle Abbey. For six fruits, Mr. Brand, Courton House, first; Mr. Sharp, Pitfour Castle, second; and Mr. Brown, third.

Nectarines, for twelve (twenty competitors), small, except winners, Mr. McLean, Gosford, first; Mr. Jack, second; Mr. Loudon, Quinta, third; and Mr. Speirs, fourth. For six fruits, Mr. Cooke, first; Mr. Fowler, Springfield, second; and Mr. McLean, third.

Apriots (small), Mr. Gibson, Vogrie, is first; Mr. Harper, Dundas Castle, second; and Mr. Thomson, Alnwick, third.

Pines are not numerous, but very full. For two Smooth Cayennes the awards go to Mr. Stewart, The Glen, Innerleithen, and Mr. Ingram, Alnwick Castle. For Charlotte Rothschild Mr. Miles, Wycombe Abbey, has the premier award. For Queens Mr. Sandford, Underley Hall, and Mr. Ingram stand in the order named. Mr. Stewart also exhibits nine fine fruit of splendid quality.

Melons are an excellent show. Of forty fruit, Green-flesh, Mr. Mansell, St. Leonard's Park, is first; Mr. Weir, Kirse House, second; and Mr. McFarlane, King's Meadows, third. Scarlet-fleshed, Mr. Methven, Blytheswood, first; and Mr. Kettles, Archerfield, third.

Of baking Apples there are fifty very fine collections, Messrs. Cooks & Co., Donnington, taking first honours. They are also first for heaviest Apples. The winners in dessert Apples are Mr. Culton, Mr. Kerr, and Mr. Jones.

Of Pears (very fine) there are twenty collections of twelve sorts, the winners being Mr. Ingram, Alnwick; Mr. Smith, Bargany; and Mr. Anderson, Oxenford Castle. For Jargonelles Mr. Brunton is first; Mr. Patter, second; and Mr. Goodhall third. Successful for this fruit also are Messrs. Dickson, McLean, Fairgrieve, Barry, and Mitchell.

For Bananas Mr. Fortune, Castlemilk, is first, and Mr. Brown, Kilmaroon, second. For collections of tropical fruit Mr. Leslie, Munchees, is first, and Mr. Brown second.

Gooseberries and Currants are splendid. Messrs. Brown, McFarlane, and Beck being the principal prizetakers.

Vetch's memorial medals and prizes were awarded to Mr. Reid for the best bunch of Black (Mrs. Pince) Grapes, Mr. Johnson for the best Muscat of Alexandria, and Mr. Orrror for Calabrian Raisin. To Mr. Shearer, Grassmount, for the best Orchid, Mr. Mathieson for the best stool, and Mr. Todd for the best greenhouse plant.

Plants are numerous and fine, Mr. Patterson, Milbank, taking the principal prize for ten specimens, Mr. Todd being second.

## PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

**DION EDULE.** *Nat. ord., Cycadaceae. Linn., Dicotyl. Dodecandria.*—"For greenhouse decoration this remarkable Cycad is at once the most easily cultivated, effective, and on account of the flatness of its rigid fronds, the most easily of its class kept free of that pest of Cycads, the scale insect. It is a native of Mexico, where it is said to be found in various provinces, and has been in cultivation since 1848, when it was brought from that country by a Miss Lavater, who presented a plant to the Horticultural Society.

"Dion edule has been cultivated at Kew almost ever since its introduction into Europe, and thrives both in the cool end of the Palm house and in the octagon of the temperate house, forming a trunk 3 to 4 feet high and 8 to 10 inches in diameter. The spread of the crown is 8 to 10 feet, and contains as many as fifty fronds, each 4 to 5 feet in length and 6 to 9 inches in breadth. Both sexes come frequently, the male come varying from 9 to 12 inches in length, the female from 7 to 12 inches.

"The seeds of Dion are eaten by the Mexicans, both the fleshy testa and the albumen, which latter in other Cycadæ is full of a starch that affords an excellent arrowroot."—(*Bot. Mag.*, t. 6184.)

**PRIMULA PARRYI.** *Nat. ord., Primulaceae. Linn., Pentandria Monogynia.*—Flowers reddish purple. "Except perhaps the *P. japonica* this is the handsomest Primrose ever intro-

duced into this country. It was discovered about 1860 in the Rocky Mountains of the Colorado district, always on the borders of alpine streams near the snow line, flowering in July, where it gives the name of "Primrose Creek" to one of the affluents of the Colorado River, in about lat. 37° N. Since that period it has been discovered commonly in alpine and sub-alpine spots in Nevada, in the E. Humboldt range, Clover Mountains, Gray's Peak, and Mount Lincoln, ascending to 18,000 feet altitude. *Primula Parryi* was raised and flowered by Messrs. Backhouse of York in May of the present year."—(*Ibid.*, t. 6185.)

## PRUNING FIG TREES.

WHEN Figs are grown in heat, and those sorts selected which bear only an autumnal crop, it has been recommended to cut the trees into shape at the end of the season, as they will break in the spring from dormant buds. It takes time, however, for these dormant buds to rouse themselves, and I find it better practice to cut-back the shoots to two leaves as soon as they become denuded of fruit. These leaves will remain on another month, and will employ their time in forming a bud in the axil of the upper one. Thus considerable advantage is gained in the spring. If any shoots do not show fruit in summer after having been pinched they are cut-back at once, and make either strong buds or fresh shoots. In the autumn I like to see on the trees a few stubby shoots which have never been stopped, and have a natural terminal bud. These in spring start first and excite the roots, which in their turn stimulate the other parts of the tree.—G. S.

## OLDLANDS HALL,

THE SEAT OF ALEXANDER NISBETT, ESQ.

BETWEEN the readers and writers of the Journal a vein of sympathy exists to a more than ordinary extent. It is not easy to determine why it is so, but the fact has been demonstrated in a hundred ways. A contributor to the pages of this paper has only to make himself known wherever he may be, and shelter and hospitality is offered him, and he is made, like the publication which has preceded him, a welcome guest. Probably this feeling is engendered by the fact which is ever manifest, that there is a willingness on the part of all who essay to do so, to convey information in a manner to be the most useful to the recipients, sparing neither time or details, however simple these may be, in accomplishing what is the mutual desire of both.

I am about to be the medium of making one whose name is familiar still better known, if possible, to the many who have profited by the details of his practice, who have been stimulated by his precepts, or interested by the happy expression of his communications. Mr. Luckhurst has frequently shown himself in the Journal, I will now try to show Mr. Luckhurst at home.

His home is in a wood on the confines of a wild forest in Sussex, and one has only to see what he has done and fraternize with him in the discussion of congenial topics to find that he is one of the most able and accomplished gardeners of the day. In five years by extraordinary perseverance and a combating of difficulties and overcoming them he has converted a peison-impregnated soil, a worse than a wild waste, into a garden of extraordinary productiveness. The walls, which have only been built within the time mentioned, are—at least the south wall—covered with Peaches and Nectarines from base to apex, with not one insect on the trees, but thousands of fruit. The ground, which then would not grow Potatoes, Globe Artichokes, nor even Horseradish, owing to its impregnation of iron, is now growing Raspberry canes 8 to 10 feet in height and other crops in the same order of luxuriance. I can say it, as the results of no inconsiderable experience with gardeners and their duties, that not many men could have done what Mr. Luckhurst has done at Oldlands in so thorough and systematic a manner. The work that he has been called upon to do, and has done it in a manner to secure the approbation and confidence of an able and critical employer, is a proof that something more than donning a blue apron, potting a plant, and using a garden implement are amongst the requirements of a skilled gardener. Young men may well note what has here been done, and the way it has been done, and judge how far they are able to carry out similar duties which they may be called on to perform.

First, then, it is noted that five years ago the place was a



wood or a waste. Not only was there not a cultivated flower or vegetable, but there were no fruit trees, even no roads. The mansion was in course of erection, and timber had been cleared for its site and for access to the works. Beyond that was nothing but an almost impenetrable jungle. This must be converted into pleasant drives, with the usual ornamental and useful adjuncts of a gentleman's residence. The wood is something like a hundred acres in extent, and is boldly undulated: here a streamlet, there a precipitous bank, and now a ravine. The first of Mr. Luckhurst's duties was to make a careful survey of the place and transfer it to a map, showing every irregularity of surface, the heights and gradients of the declivities, and the nature of the streams. This was done in a systematic manner preparatory to making the drives and walks. This has been a formidable work, for it has been done with a regard to a saving of all the possible expense consistent with a preservation of the best natural features of the estate. These could only be ascertained by taking the views from the tops of trees, so dense was the underwood and irregular the surface. Mr. Luckhurst has planned and carried out the work of road-making with great success. In one part deep cuttings have been necessary, in another uplevelings of great bulks of material. In this work the cubic contents to be removed were ascertained with accurate estimates of the cost of the work furnished. It has been the same in pond-making, fencing, and erections of all kinds, of which Mr. Luckhurst has been, as it were, architect and contractor, having furnished drawings and estimates previous to commencing every portion of the work. As may be expected, a perfect system of drainage is carried out to take away superfluous water, and, what is not less important, a system for a supply when wanted is brought within reach of the crops, Mr. Luckhurst having so arranged matters that the sewage, commonly regarded as waste, is pumped up to tanks in the kitchen garden, and to this in a great measure is to be attributed the luxuriance of the vegetables and the rude health and sturdy vigour of the fruit trees.

Thus nothing has been done by guesswork, but everything has been carried out in a skilful and systematic manner.

The principal charm of Oldlands as a residence consists in its wild woodland walks and the great natural beauty of the landscape. In an artistic and gardenesque view there is nothing remarkable to note. The treatment of the grounds is admirable, but time is necessary to perfect the plans, and the new work which is continually in progress prevents the place, as a whole, having a finished aspect. The family being also absent two-thirds of the year, it is only at stated intervals that a polish is given to the home-surroundings. Flower gardening of a high order is, therefore, not attempted. The design of beds is effective, and the borders are rich in flowering shrubs. The walls of the mansion are being clothed with attractive plants, which I will not enumerate, but leave Mr. Luckhurst to tell us what is suitable for this purpose of decoration. Yet I must not omit to say how fine is *Berberidopsis corallina*, not only as a south-wall climber, but for the usefulness of its pendent crimson wax-like clusters for drawing and dining-room decoration. When the hundreds of Conifers have increased in size, when the thousands of *Rhododendrons* are perfected, and when time is found to "trim and make neat," then will the natural charms of the place be supplemented by ornamental appendages tastefully disposed. Striking objects in the garden are dense bushes of *Hydrangeas*, their hundreds of gigantic blooms being, by the action of iron in the soil, of a rich deep blue.

I will now glance at the useful department of this place. If Mr. Luckhurst amidst his multifarious duties of planning and carrying out new work cannot find time to devote attention to many details which he would wish to do, he wisely determines that, whatever is left undone, the fruit trees shall not suffer neglect. The collection is extensive, about eight hundred trees being under systematic pruning, embracing all the best sorts. The growth and condition of these trees is little short of marvellous considering the time they have been planted, and they afford incontestable proof that the attention they have received is of the first order in tree culture. That the word "marvellous" is not an exaggeration I will instance a *Bellegarde* Peach tree on the south wall. It was received from a nursery a small plant three years and a half ago, and it has now a spread of 24 feet, covering every inch of wall from top to bottom, and is laden with fruit. Pear trees which were planted at the same time in a small state are now perfectly formed pyramids 10 feet in height, and studded with fruit spurs to their centres. Plum trees there are of the same age

and size wreathed with fruit, also Cherries and Apples. Need it be said that Mr. Luckhurst is no advocate of early root-pruning and rigid summer-pinching? Light, liberty and cleanliness, good food and careful guidance, are his landmarks in fruit-tree culture.

But it may be surmised that the soil of this garden is naturally suited to the growth of trees. This is not so, and, paradoxical as it may seem, it is because the natural soil was so bad that these trees have been made to grow so well. It was because Mr. Luckhurst was told, on high authority, that Peaches would not flourish in the open air that he determined to make them, and to accomplish that the old soil was removed entirely and new soil introduced. This soil-removal has been a work of great magnitude, for thousands of loads have been carted a considerable distance, and now the fruits of the labour are to be seen in splendid trees and luxuriant vegetables. The orchard trees were all planted on stations of fresh soil 6 feet in diameter and 3 feet deep for each tree, and hence their ruddy health and great promise.

In Peach-growing Mr. Luckhurst is not afraid of strong wood; indeed his aim has been to produce it as strong as possible, or he would not have covered a wall 10 feet high in three years and a half with fan-trained trees. So long as the growth is regular the stronger the better, would seem to be the principle of action here. As an instance of the luxuriance of the trees, the leaves of *Lord Napier Nectarine* are 9 inches in length and 2½ inches in width. But what of the fruit? The tree is laden with them, many exceeding 7 inches in circumference, and some of them taking honours at the great Show at the Alexandra Palace. In the case of these strongly grown Peach and Nectarine trees their vigour has not detracted from their fruitfulness, but has increased the size of the fruit. Ceyling boards project over the wall 15 inches, and they are never taken down. The trees are watered with sewage to keep them healthy, and syringed with pure water to keep them clean; and fruit is supplied in abundance from the second week in July from *Early Beatrix*, to the end of October from the *Late Admirable*. Dr. Hogg Peach is fruiting freely; it is a handsome fruit of superior quality. I cannot give an estimate of the varieties of fruit; that may well be done by the grower, for assuredly he is well able to furnish reliable information on the cultivation and merits of the best varieties of wall and orchard fruits.

But in this general glance one speciality must be noted in a wall of Pear trees. It is a happy idea, and will be an ever-growing source of interest. On an eastern aspect is planted a collection of Pears to be trained as diagonal cordons. The arrangement is this: At the extreme end is planted the earliest known Pear, followed by the next in succession, and so continued until the other end is reached with the latest sort. In this plan is embraced upwards of seventy varieties. The arrangement has been made with great care, and the trees are very promising.

Vines are grown in two spacious and well-constructed houses. They are also vigorous, fine in bunch and berry; and while the *Muscats* are beautifully finished, the *Hamburgs* do not quite satisfy the grower. *Royal Ascot* is carrying a fine crop, capitally finished and of splendid quality, and *Gros Guillaume* is heavily laden with noble fruit. Heavy surface-dressings of manure are applied to the border, and into this feed the spongioles are darting in all directions and adding vigour to the canes and fruit. Surface-dressing of the soil with manure is carried out with various crops with the very best results. For fruits especially, in Mr. Luckhurst's estimation, it has quite superseded the practice of digging-in.

Cucumbers are grown in a fue-heated pit, as also are plants for table decoration. In this pit a late crop of *Tomatoes* are also ripening. These and the Cucumbers are grown in strong clay, but it is first burnt and then soaked with sewage, and the vigour of the plants proves how well this strong food suits them. Melons are grown in dung beds, so that we observe two old-fashioned appliances—dung beds and fue-heating—turned to profitable account in this new garden.

I will summarise the cardinal means which have transformed a wild wood into a complete and fruitful garden. They are careful calculation, skill, zeal, plans prepared on sound principles, details carried out with thoroughness, and—for this is worthy of especial mention—sewage.—A VISITOR.

**HENDER & SONS' SEEDLING PETUNIAS.**—We have before us fifty flowers of these seedlings, each a distinct variety, each

large, and each strikingly and beautifully coloured. We never before saw such a group of *Petunia* flowers.

#### CARYOPHYLLUS AROMATICUS.

This is a commercial plant of considerable importance, and has been known to this country for nearly a century. It is only cultivated in choice and botanical collections of plants, where it flourishes in a soil composed of loam and peat, and must have a high steady temperature. It is propagated by cuttings inserted in sand under a bellglass. But while we speak of it and know it as a plant in our artificial mode of growing it, yet in its perfected state it is a tree of which the clove spice of commerce is the dried flower buds. Dr. Hogg in his "Vegetable Kingdom" states that the Clove is a tree 20 to 40 feet high, a native of the Moluccas, but now cultivated all over the East Indies where situations favourable to its growth can be obtained, and also in some of the West India islands. The cloves of commerce are the unexpanded flower buds, the corolla forming a ball on the top between the teeth of the calyx. They are first gathered when the trees are about

the prizes amount to upwards of £100. Entries close on the 20th.

#### PEACH BUSHES.

I noticed a few days since that Mr. Rivers of Sawbridge-worth had sent to London ripe Peaches of the Early Beatrice grown on a bush outdoors. I think it possible that in many parts of England the Peach may be grown and ripened on bushes. For some years I have had the Early York so grown, and it generally bears well. This year I have gathered more than six dozen well-coloured fruit of excellent flavour. I have also Crawford's Early very fine on a bush with large and good fruit. I shall try the Early Beatrice, the Prince of Wales, and one or two others. I have no wall, so rely solely on bush-growing also for other fruits. My land is high up, and bleak in winter, yet I generally have good crops; the only drawback being the number of bullfinches that eat out the bloom buds and do more damage to me than the frosts ever do. Perhaps others will try a few bushes of different sorts of Peach out of doors and give their experience. Mine are planted amongst the shrubs and used as ornamental trees, as I do also my Pears and Plums, and they have a very pretty effect both when in bloom and also when covered with bright high-coloured fruit; besides which I save the labour and expense of wall-training.—HARRISON WEBB, *Weirleigh*.

[We had a seedling Peach tree trained as an espalier in a garden on a southern slope near Witham in Essex. It ripened its fruit annually.—Eds.]

AN AGAVE AMERICANA is now in flower at Siebold's Holme, Wisbech; it stands in front of the house bordering on the street, and first showed for bloom about the 15th of May last. Its stem has reached 17 feet, and the twenty-five clusters of flowers are of a brilliant chrome yellow. The plant is known to be above eighty years of age. It was last year reported, which is supposed to have thrown it into flower.

#### OLLA PODRIDA—A CONTINENTAL TOUR.—No. 4.

FROM Milan we went to Venice. As Venice is quite a city *sui generis* built on the sand dunes of the Adriatic, and as the streets are all turned into canals, and the locomotion effected by gondolas instead of voitures, it is hardly fair to expect any public gardens; and yet Venice has a public garden on the extreme north-east point of the city, and a botanic garden near the railway station. I paid a hurried visit to the latter during a heavy fall of rain, but was much better pleased with it than the one at Milan. There was a very fine collection there of Yuccas and Agaves grown in pots, and shaded from the sun by being grown under double span sheds, covered with Bamboo mats. This species of Bamboo, nearly allied to the *Arundinaria falcata*, is much used in different ways for shading. I first noticed it in Milan, split and cut into lengths like tile laths, nailed against the sides of scaffolding poles to form a protection for workmen against the scalding sun, and also to prevent pieces of stone, or brick and mortar, from falling into the streets. It is also used nailed across windows to prevent plastering of walls from drying too fast and cracking. The smaller and finer ends are again made into blinds, by having cord twisted in and out between them, having much the appearance of fine straw. These blinds admit the air, but form a very perfect shade, and are very durable.

The Agaves and Yuccas at the Orto Botanico at Venice were growing under blinds made of the coarser Bamboo, which could be rolled up at pleasure. The collection was a very good and varied one, and the plants seemed to rejoice in their treatment. I have heard of Orchids in India being grown much in the same way in houses lathed-in with split Bamboos, and covered on the sunny side with leaves of the Sago Palm. One of the most striking Yuccas was *Yucca quadricolor*. There were also a nice collection of Roses, including many of our best sorts, and some, too, of the older varieties, which I had not seen for some time, and a very large kind of yellow Banksian; but the climate was too hot, and the petals of the Roses were too thin, as if they had been forced too much into growth. There were also some good specimens of *Acacias* and some plants of *Heliotrope* which promised to be very fine. However, the rain began to come down in torrents, and as the gondola was in waiting outside I had to hurry back through the gardens.

The public garden at the north-east end of the city is very

Fig. 52.—*Caryophyllus aromaticus*.

six years old, and are either collected by hand or beaten with reeds so as to fall upon cloths which are placed under the trees to receive them, and dried either by fire heat or in the sun. The fruit, which is a dry berry, also possesses a very aromatic taste and odour. The use of cloves in domestic economy is well known. Water extracts the odour of cloves, with comparatively little of their taste. All their sensible properties are imparted to alcohol; and the tincture when evaporated leaves an excessively fiery extract, which becomes insipid when deprived of the oil by distillation with water, while the oil which comes over is mild. Oil of cloves is obtained by distilling cloves with water, to which it is customary to add common salt in order to raise the temperature of ebullition; and the water should be repeatedly distilled from the same cloves in order completely to exhaust them.

AT THE INTERNATIONAL POTATO SHOW to be held in the Alexandra Palace, Muswell Hill, September 29th and 30th,

devoid of interest, and certainly very devoid of plants. There was a crop of hay being secured by a set of idle Italians; though when I speak of its being secured by them it is rather a figure of speech, as they were one and all lying down under the trees for the midday *siesta*. There is also the unfailing *Café Ristoranti*, or rather two of them, one at each end of the garden—one raised on a mound of earth, apparently mud dredged out of the Adriatic. There was no attempt, as I said, at flowers, and very little at flowering shrubs; but there were some nice *Acacias*, and another tree which I did not know, and which I have not yet learned the name of, which was in full flower and very sweet-scented. The flowers are in drooping racemes, white, with a purplish throat, each flower nearly an inch across when fully expanded. I saw it elsewhere afterwards—as at Verona, Bellagio, and Lugano—but never learnt the name. I need not detain your readers longer with Venetian gardening. Nor was there anything worthy of note at Verona, which was the next place we went to, except a beautiful avenue of *Cypresses*.

From Verona we went to Bellagio on the Lago de Como, and here the luxuriance of the foliage was very striking. There are two villa gardens here exceedingly well worth seeing—the Villa Serbelloni, where there is a dependance belonging to the *Hôtel Grande Bretagne*, and the Villa Melzi. The grounds of the Villa Serbelloni are very extensive, comprising the wooded knoll and point projecting into the lake, commanding views of the three arms of the lake. On one side the winding paths are cut into the face of a rock looking perpendicularly down into the lake a height of 400 or 500 feet. The whole of the wooded knoll is intersected with paths, with a circuitous driving road, by means of which you can drive by an easy ascent to the top. All the shrubs and many of the best kinds of Pines and Firs seem to luxuriate; and against a wall facing south beneath the villa were two or three beautiful plants of *Mandevilla suaveolens* just coming into full bloom. In some of the sheltered nooks were beds of *Agaves*, *Yuccas*, *Aloes*, *Dracenas*, &c., and in the woods were a great variety of Ferns. The winding paths command at different points the finest views of the lake, and this is the only point where all the three arms of the lake can be seen to perfection. Nothing was more striking than the exceeding verdure of the sides of the hills with the fresh foliage of all the trees which had not as yet suffered from the summer's sun.

The grounds of the Villa Melzi are private, but are shown to the public by payment of a fee. They are close upon the margin of the lake, and equally with the grounds of Villa Serbelloni display great luxuriance of foliage. There was a better attempt here at lawns; but with the usual fault, the grass not being mown more than once in three or four weeks. The following plants and shrubs were doing well:—*Araucaria excelsa*, *Cocos coronata*, *Chamerops excelsa*, *Abies pendula*, a beautiful specimen of the Weeping Fir; *Pinus lanceolata*; *Salisburia adiantifolia*, a very striking plant; *Justerenia violacea*, *Lagerstrœmia regina*, &c. This, which I had only seen before as a denizen of our cool stoves, was quite a large tree, both here and at Villa Serbelloni. The *Benthamia fragifera*, with its yellowish-white cross-shaped flower, was also very conspicuous. The *Bambusa gracilis*, and *Arundinaria falcata*, and other plants of the Bamboo tribe seemed to be much at home in shady places by the water side; and plants of *Sanchezia nobilis* plunged in pots had, the gardener told me, done well last year, though they had only just been put out then. The Oranges, Lemons, and Pomegranates were also flourishing; and though one of our first-class English gardeners would have made much more of the great opportunities presented by soil and climate, yet the exceeding luxuriance of the early spring growth on the trees and shrubs made the gardens well worth a visit, and we only regretted that our *cicerone* somewhat hurried us on, as is the manner with some *cicerones* who expect other visitors and other fees. There is some fine statuary in the house; but for the description of interior see Murray. I have already been carried away too far with this description of the villa gardening by the side of the lakes.

We met with much the same at Lugano, and again at Baveno, on the Lago Maggiore, where there is a beautifully-kept villa garden, and a new villa built by an Englishman; but I will not weary your readers by a repetition of the names of the shrubs and Firs, &c., which were planted there. I may mention, however, that the *Wellingtonia* was developing with great rapidity, making young quick growth, tapering far more than in any English-grown specimen I have yet seen, and the young growth of the *Pinus excelsa* and *insignis* was some-

thing wonderful. But the gem at the Villa Clara is the little chapel built in an octagon form, beautifully decorated with mosaics, frescoes, encaustic tiles, and painted windows, with a daily service. The chapel is open to all English visitors at the hotels at Baveno, and it is quite worth while to make it a Sunday resting-place. The chapel is quite perfect in its way.

From Baveno we crossed into Switzerland by the St. Gothard Pass, and I will reserve my few remarks on the vegetation, &c., we saw *en route* till another paper.—C. P. P.

## EARLY WRITERS ON ENGLISH GARDENING.

No. 7.

JOHN EVELYN.

SWITZER, the contemporary of Evelyn, and one of the best practical gardeners, and the best writer on gardening of that period, observed that "Evelyn, like another Virgil, was appointed for the retrieving the calamities of England and reanimating the spirit of his countrymen for their planting and sowing of woods; to him it is owing that gardening can speak proper English." He was born at Wotton in Surrey, the mansion of his father, on the 31st of October, 1620. He commenced his education at Lewes in Sussex, and completed it at Balliol College, Oxford. In 1640 he entered as a student of the Middle Temple, but proceeded in 1644 on the grand tour of Europe to Italy. Having exerted himself in promoting the restoration of Charles II. he was appointed a commissioner for the sick and wounded during the Dutch war. He was one of the first Fellows and of the Council of the Royal Society on its establishment in 1662. It was by his persuasion that Lord Henry Howard in 1667 presented the Arundelian marbles to the University of Oxford, for which he received its thanks and the degree of Doctor of Laws. He was also appointed one of the Commissioners for rebuilding St. Paul's Cathedral, had a place at the Board of Trade, and was one of the Council for the management of the Plantations. After the accession of James II. he became one of the Commissioners for executing the office of Lord Privy Seal, and in 1695 Treasurer of Greenwich Hospital.

Mr. Evelyn became possessed of Sayes Court in 1647 by marrying the only daughter of Sir Richard Browne, tenant under the Crown. Sir Richard, being absent as our representative in France, allowed Evelyn to reside at Sayes Court in 1651.

In the January of 1653 Evelyn writes, "I began to set out the oval garden at Sayes Court, which was before a rude orchard, and all the rest one entire field of a hundred acres, without any hedge except the hither Holly hedge joining to the bank of the Mount walk. This was the beginning of all the succeeding gardens, walks, groves, enclosures, and plantations there."

"The hithermost garden I planted about 1656, the other beyond it, 1660; the lower grove, 1662; the Holly hedge, even with the Mount hedge below, 1670."

Previously to his incurring the expense incident to all these improvements Evelyn had wisely secured to himself and heirs a long possession. The ground belonged to the Crown, and he obtained in the December of 1662 a warrant to prepare a lease to him of sixty-five acres, the portion of Sayes Court now held by him, for ninety-nine years, though the term greatly exceeds the Lord Treasurer's instruction, on rent to the Crown of £20; and 204 acres, the remaining portion, for thirty-one years at a rent of £40. In 1663 the lease was finally granted, but the rent was reduced to 22s. 6d.

In 1683 he "planted all the out-limits of the garden and long walks with Holly," and of one of them he thus speaks—"Is there under heaven a more glorious and refreshing object of the kind than an impregnable hedge of about 400 feet in length, 9 feet high, and 5 in diameter, which I can show in my now ruined garden at Sayes Court (thanks to the Czar of Moscow) at any time of the year? It mocks the rudest assaults of the weather, beasts, or hedge-breakers." This last sentence evidently refers to its being proof against the barbarian amusement of the barbarian Czar of Russia, his temporary tenant, being impelled through the Sayes Court hedges in a wheelbarrow.

In 1696 Evelyn let Sayes Court to Captain Benbow, afterwards Admiral, of whom he thus speaks in his diary:—"I have let my house to Captain Benbow, and have the mortification of seeing every day much of my former labours and expense there impairing for want of a more polite tenant." In the commencement of the year 1698 Benbow underlet the

house, together with all his furniture, to the Earl; but Evelyn soon had to regret the accommodation he had allowed to His Majesty, for in the month of May in that year we find him petitioning the Lords of the Treasury that compensation be made him for the damage the Earl had done to his house, garden, and furniture. The well-known gardener, Mr. London's report is as follows —

"May 9th, 1696.

"Some observations made upon the gardens and plantations which belong to the honourable John Evelyn, Esquire, at his house of Sayes Court, in Deptford, in the County of Kent.

"During the time the Earl of Newcastle inhabited the said house, several disorders have been committed in the gardens and plantations, which are observed to be under two heads: one is what can be repaired again, and the other what cannot be repaired.

"1. All the grass works is out of order, and broke into holes by their leaping and shewing tricks upon it.

"2. The bowling green is in the same condition.

"3. All that ground which used to be cultivated for eatable plants is all overgrown with weeds and is not manured nor cultivated, by reason the Earl would not suffer any man to work when the season offered.

"4. The wall fruits and standard fruit trees are uprooted and unnailed.

"5. The hedges nor wilderness are not cut as they ought to be.

"6. The gravel walks are all broke into holes and out of order.

"These observations were made by George London, his Majesty's Master Gardener, and he certifies that to put the gardens and plantations in as good repair as they were in before his Majesty's residence there will require the sum of fifty-five pounds, as is justified by me.

"GEORGE LONDON.

"Great damages are done to the trees and plants, which cannot be repaired, as the breaking the branches of the wall fruit trees, spoiling two or three of the finest true phillareas, breaking several hollies and other fine plants."

Lord Keeper Guildford described Sayes Court as "most boscaresque, being, as it were, an exemplar of his (Evelyn's) book of forest trees." It long since was pulled down, and its gardens built over. Several years previous to 1759 Sayes Court, mansion, and part of the grounds had been used as the workhouse for the parish of St. Nicholas, Deptford. Then it became a dépôt for emigrants, and was pulled down nearly twenty years since. There is a small drawing of the house and grounds in a map of Deptford attached to Evelyn's "Diary."

Evelyn was far in advance of his age in almost all knowledge and judgment. After the great fire of London he proposed that with the rubbish a quay should be formed from the Tower to the Temple, whereby the river there would be always full and easy of access. Not succeeding in that, he seems to have turned his thoughts towards preparing materials for re-erecting the city; for in the next year, 1667, he applied for a sole license for fourteen years, in conjunction with Gabriel Sylvius, for their invention of a kiln and furnaces for burning bricks.

Amongst the MSS. at Wotton are parts of two volumes entitled "Elysium Britannicum," and the contents are specified, but the work was never completed. If it had been completed it would have been an "Encyclopedia of Gardening" of Evelyn's time. A portion of it was finished and published as "Kalendarium Hortense." It is dedicated to Cowley the poet, his "deare and worthy friend;" and in 1690, writing to Lady Sunderland, Evelyn said, "It is now entering on the eighth edition. 'Tis now almost forty years since first I writ it, when horticulture was not much advanced in England."

Among the State Papers of the date 1664 (?) is a MS. of fifty-seven pages, being that "Kalendarium Hortense, or instructions for each month of what is required to be done in the Orchard and Ollitory Garden, and in the Parterre and Flower Garden." There is also the table and table of contents

of his "Sylva," printed in 1664; also particulars of large Oak trees found in different localities, with the prices for which they were sold; also discourses on cider by Dr. Smith and Capt. Taylor. At the end are money accounts in Spanish of the dates 1642, 1648, and 1661. One thousand copies of the first edition of the "Sylva" were sold in two years, and the author was naturally gratified by this success, so unusual in those days, as well as by being able to inform the king that the publication had caused in that same space of time "more than two millions of timber trees to be planted, besides infinite others."

Evelyn in his "Diary" states many particulars relative to twenty-six gardens he had visited in France and Italy, and fourteen in England. Among the latter is that of the Earl of Essex at Oashobury, of which he says "The gardens are very rare, and cannot be otherwise, having so skillfull an

artist to govern them as Mr. Cooke, who is, as to the mechanic part, not ignorant of mathematics, and pretends to astrology. There is an excellent collection of the choicest fruit." In its culture the gardener named was certainly a proficient. He is the Moses Cooke who, in 1679, published a favourably known book on "Raising Forest and Fruit Trees."

Evelyn gives still more special details of Lord Clarendon's mansion and gardens, Swallowfield, in Berkshire, "the delicious and rarest fruits of a garden, the skill in the flowery part, and the innumerable timber trees. There is one orchard of one thousand golden and other cider Pippins."

In 1700 Evelyn visited Beddington, "the ancient seat of the Carews now decaying with the house itself, heretofore adorn'd with ample gardens, and the first Orange trees that had been seen in England planted in the open ground, and secur'd in winter onely by a tabernacle of boards and stones removable in summer, that standing 120 yeares, large and goodly trees, and laden with fruits, were now in decay. The Pomegranades bears here."

Evelyn died at Wotton, February 27th, 1705-6, and

was interred in the family vault there after a life of unwearied utility, sincerely regretted by every man of science and every patriot.

Besides the works already mentioned, Evelyn published the following relative to the cultivation of plants: "The French Gardener," in 1658; "Terra, a Philosophical Discourse of Earth," 1675; "Pomona," 1679; "Quintiny's Treatise of Orange Trees," 1693; and "Acetaria, a Discourse of Sallets," 1699.

## NEW EARLY AND LATE STRAWBERRIES.

No. 2.

The remaining sorts I have at present to notice are decidedly late, and first of all *Excelsior* (fig. 54). This is a seedling the second generation from Cockcomb, by which I have removed the objectionable cockcomb shape altogether. The foliage is dark green, and the habit of the plant very handsome, of moderately dwarf and compact growth, much after the style of River's Elisa. The fruit is not so large as its parent, but much handsomer and of regular conical shape from which it never departs.

The woodcut represents the ordinary run of the fruit, and is far from being a large specimen. I have frequently grown

Fig. 53.—John Evelyn, Esq.

it half as large again. The quality of the fruit is excellent. Flesh white and sometimes pinky white, very solid and buttery, with a rich vinous flavour. Under glass the plant behaves remarkably well. It is, perhaps, rather bushy, and therefore requires a full-sized pot, but it bears accordingly, and I know of no forced Strawberry so good in quality or of such undeviating high flavour. Early Prolific and Duke of Edinburgh for early, and Excelair for late forcing, are not to be beaten by any sorts yet known, let anyone say what they may.

This variety has also a property to which I have before alluded. After the plants have finished fruiting the beds present a mass of bloom all over from the runners, which may be removed with a little earth, potted, and grown-on in a cool frame, or if let alone in the open ground, and should the season be mild it will ripen a second crop of fruit late in the season.

*Variegated Enchantress* (fig. 55). This is quite a novelty, at least as far as my experience goes. I never met with a variegated sort bearing a good-sized fruit.

This variety not only bears the class of fruit represented by the woodcut, but the quality is everything to be desired. Like its parent Enchantress, it produces a bright crimson-coloured fruit with very numerous small yellow seeds prominently disposed, pinky-red flesh, solid, very juicy, and possessing a remarkably rich Pine flavour. Like most variegated sorts the plant is not very large, but it bears well for its size, and is altogether a late and remarkable variety.

Next in order is *Bonny Lass* (fig. 56). The fruit of this fine late sort is very large and handsome, pale red in colour, with prominent seeds thickly disseminated, remarkably solid pinky-red flesh, juicy, and of good flavour, the flavour improving as the season advances. Plant stout and healthy, a good grower and profuse bearer. It commences ripening its fruit at mid-season, and generally lasts all sorts out except *Fragaria tardissima*. Quite the finest late Strawberry, the latest berries of which, though smaller, have frequently the highest flavour. This sort, with Early Crimson Pine and Sir John Falstaff for early and mid-season, are the three fine sorts we grow for market.

Lastly, *Fragaria tardissima* (fig. 57). This is not a sort anyone would care to grow largely, but where a little very late fruit is wanted at the middle and latter end of August, and sometimes beginning of September, this will be a desirable kind to grow. The fruit is not very large, and cannot possibly be so good in flavour at so late a period of the season; nevertheless it is sometimes very good. Colour of fruit bright red with a tinge of scarlet; seeds depressed and thinly scattered; flesh pale red, melting and juicy, with fine flavour, varying with the season. The fruit is borne in clusters on shortish footstalks, so that its blooms become quite hidden by the foliage. The plant in my soil makes too much foliage; so that to ensure success I have found it necessary to considerably reduce the quantity of foliage once and sometimes twice during the season, to enable the blossoms

in the first instance to set their fruit, and later on to ripen it. When this is done the flavour is really very good. The tendency of the plant is to set its fruit well; and from what I am about to relate I doubt not this very late sort, if it possessed no other merit than its lateness, bids fair to be one of the parents of a new race of very superior high-flavoured late sorts. These four last seedlings, together with Enchantress, Gipsy Queen, and Fair Lady form a group of late varieties, each having some peculiar quality differing from any other late sort in cultivation.

I must conclude these descriptions by observing that several years ago Mr. Laxton of Stamford was good enough to send me a seedling Strawberry which he described as a cross between the Pine and Alpine races, having then no very positive characters, and being also anything but fertile—in fact, as he said, almost a mule. He sowed the seedling Alliance and sent it to me, thinking it might possibly, if good for nothing else, become the parent of a new race. I worked away at this alliance of two original types of the Strawberry, sowing the seed of such fruits as I could get from time to time till I produced a considerable amount of fertility. Having so far overcome its mullish propensity, it struck me some two or three years ago that *Fragaria tardissima* as a very late sort, but still wanting in some respects, might make a grand second parent for a further acquaintance with Alliance; for it is a notable fact according to my experience, that you do not generally succeed in producing any very new feature by using parents on either side which in themselves already possess a

large amount of perfection. I therefore determined to cross two or three of the earliest blooms of *F. tardissima* with the pollen of Alliance, and I believe I have succeeded thoroughly; for on sowing the seed of two berries thus treated I have raised, to my mind, one of the most delicious late Strawberry-berries I ever tasted.

The season just ended is the second year of the selected plant. It bore a heavy crop of fruit which, though not at present very large, was of exactly the outline of *F. tardissima*. Some of the fruit was rather larger, but darker in colour like Alliance, dark red flesh all through, and so remarkably juicy, sugary,

vinous, and melting, that I cannot easily forget its delicious flavour, and am only longing for next season to arrive, when I hope to have the satisfaction of confirming the above impressions on witnessing the results from some twenty or more fine plants I have already reared and hope to fruit well in due course. The plant is of stout upright growth, and partakes of the character of both parents—that is, the colour of leaf from Alliance and the contour of plant from *Fragaria tardissima*, and the season will undoubtedly be late.

If these remarks should catch the eye of Mr. Laxton I shall be happy next season to return Alliance to him improved in size and fertility, accompanied (if he will accept them) by a plant or two of the new cross, to be named, if still found worthy and he will do me the honour, after Mrs. Laxton or

Fig. 54.—Excelair.

Fig. 55.—Variegated Enchantress.

Fig. 56.—Bonny Lass.

Fig. 57.—*Fragaria tardissima*.

some member of his family to be selected by himself. This little compliment, I am sure, is quite due to one who has done so much to add to our enjoyments, yearly increasing, in one of the great luxuries of our table, and for which I thank him.

I cannot close this article without alluding to the extraordinary season through which we have just passed, not only in the midland district, but generally throughout the country; the enormity of the Strawberry crop, which has been almost unparalleled; the large amount of fruit which has been totally spoiled by the incessant wet weather; and the consequent general lack of flavour in all but a few of the very best sorts. —W. ROSEN, M.A., M.D., *Morningside, Kidderminster.*

### THE WATER GARDEN.

If there is one branch of gardening more neglected than another, it would seem to be that which relates to the culture of aquatic plants, both hardy and tender. It is not possible, or even desirable, to grow the Victoria Lily in every garden; but there are smaller and scarcely less beautiful Water Lilies, which only require a tank a few feet square in which to cultivate them very successfully; and in the majority of cases the extra expense of a shallow slate tank is amply compensated by the minimum amount of attention which the smaller aquatic plants require when once planted compared with ordinary decorative plants in pots. Many of the most beautiful and interesting of all exotic water vegetation may be grown in an ordinary plant stove during the summer months, and their introduction would do much to break that everlasting monotony and sameness of material one generally finds in such structures. A slate tank, about 4 feet square and 1 foot or 14 inches in depth, is amply sufficient for one of the smaller *Nymphaeas*; and a few smaller plants, as *Pistia stratiotes* or *Limncharis Humboldtii*, only require an inch or two of space around the sides. A series of these shallow tanks might occupy one side of a plant stove during the spring and summer months, and thus, at a slight expense, afford the means of growing a very interesting collection of aquatic plants. These tanks are of a very portable size, and are readily emptied and removed in the autumn, when the plants have died down or are at rest, in which condition one tank is often sufficient to keep the tubers of such plants as *Nymphaeas*, which should never be dried off.

Most aquatics grow well in a compost of fibrous loam and manure, and they may either be planted in pots or shallow wicker baskets (which for the larger kinds are better), plunged beneath the surface.

Aquatics are now kept in stock by most of the principal nurserymen, so that they are readily obtainable. Now it is the fashion to plant out our conservatories on the natural style, it is advisable to make provision for aquatic or sub-aquatic vegetation. Even if it is a cool or unheated structure, our common white Water Lily and the American *Nymphaea odorata*, together with the fragrant and perfectly hardy *Aponogeton distachyon*, may be introduced with success; but if the water is heated by a circular coil of piping, the selection of plants may be increased by planting the lovely and free-flowering blue and rosy *Nymphaea*, *Papyrus*, and the beautiful umbrella-leaved *Nelumbium* or Sacred Bean should always find a place. Even where no regular aquatic pond or tank is provided by the architect in heated conservatories or plant houses, the *Nelumbium*, *Papyrus*, and other distinct and effective sub-aquatics, may be grown with every success by plunging tubs or barrels down through the middle in the beds or border, so as to afford the necessary means of supplying them with the requisite amount of moisture. I have seen this plan adopted in several cases, and most interesting and surprising effects may be obtained in heated houses by these or similar means.

Outdoor tanks, streams, ponds, or basins may be rendered doubly attractive by the addition of white Water Lilies, *Aponogeton*, and *Richardia aethiopica*, whilst their moist spongy margins may be judiciously planted with *Agapanthus umbellatus*, *Arundo donax*, or the hardier *Arundinarias* and *Bamboos*. Even the humblest window garden need not be less ornamental or pleasing on account of the absence of aquatics, when such a lovely plant as the Hawthorn-scented *Aponogeton* may be grown and bloomed all through the autumn and winter in an inverted bell-glass or ordinary parlour aquarium. There are many of our commonest decorative plants which double or treble their vigour when grown as aquatics, and this is especially the case with *Cyperus alternifolius*, *C. laxus*, and the white-spathed Lily of the Nile (*Richardia*). The golden-flowered

*Limncharis Humboldtii* blooms freely every summer in the open air, planted in a shallow tank in the Jardin des Plantes, and succeeds perfectly in a sunny greenhouse in this country, although generally grown in the stove. The fresh-green water Fern, *Ceratopteris thalictroides*, also grows well in a pot plunged in a pan full of water.

Apart altogether, however, from the beauty and interest of aquatic vegetation in our plant houses, the introduction of water tanks influences the climate of such structures to a wonderful extent by keeping them constantly in a state of genial humidity; indeed, the introduction of water vegetation in the manner above suggested is indirectly a saving of labour in other ways, and is certainly worth more general adoption. Between the two extremes of a gigantic and expensive aquarium for the great Victoria Lily and the modest inverted bell-glass, there are hundreds of intermediate means of growing aquatic plants which deserve the attention of all amateurs and gardeners who are not completely led on by habit or fashion in this as in many other matters relating to the embellishment of our gardens.

The following list of aquatic plants may be useful to some in making selections:—*Nymphaea pygmaea*, white; *N. oerulesa*, blue; *N. alba*, white; *N. odorata*, white; *N. roses*, bright rose; *N. rubra*, rosy crimson; *Pistia stratiotes* or Water Lettuce, bright green tufted foliage; *Vallisneria spiralis*, bright green leaves and curious spiral flowering stems; *Nelumbium speciosum* or Sacred Bean of the East, bright rosy flowers and large peltate foliage, borne on long stalks, which give them the appearance of so many umbrellas; *Cyperus alternifolius*, Umbrella Sedge of Madagascar; *Ceratopteris thalictroides*, aquatic or water Fern, *Limncharis Humboldtii*, yellow; *Thalia dealbata*, fine glaucous foliage; *Aponogeton distachyon*, white; and *Richardia aethiopica*, white Trumpet Lily, perfectly hardy if plunged 1 foot or 10 inches below the surface, so as to guard against frost.—F. W. B. (in *The Gardener*).

### SNOWFLAKE AND EUREKA POTATOES.

HAVING seen several accounts of the crops raised from single pounds of seed of the above-mentioned varieties of American Potatoes, I venture to forward an account of the produce grown here from the same quantity of seed. As I am a competitor for the prizes offered by Messrs. Hooper & Co., the Potatoes for planting were weighed, the sets counted and planted, and the produce weighed in the presence of their agent besides a number of other witnesses. They were planted on the 13th of April, and Snowflake was lifted on the 13th of August, the produce being 638 lbs. Eureka was lifted a week later, and the astonishing quantity of 1082½ was the produce of 1 lb. of seed. Snowflake is a remarkably handsome Potato, but with me has suffered severely from the disease. Eureka is a later and more robust variety than the preceding, and produces very large Potatoes, three hundred tubers weighing 369½ lbs. It appears to suffer less than Snowflake from the disease.—F. FORD, *The Gardens, Capeethorne.*

### COVENT GARDEN.

THE neighbourhood of Covent Garden abounds with objects of historic and architectural interest. Now dedicated to the goddesses Flora and Pomona, its market held in high repute, its stalls crowded, and its surrounding streets bustling with the traffic of the great city, it was once the garden of a convent, afterwards a fashionable part of town, the residence of persons of rank, opulence, and literary fame. In the days of the early Georges it was the resort of men whose names crowd the canvases of the most brilliant picture of the time. Looking back well and that before the suppression of the religious houses this spot was a garden or burial-ground: hence the name "Convent" or "Covent" Garden; it then devolved to the Crown, and the property was first given to Edward Seymour, Duke of Somerset. At his attainder it reverted to the Crown, and was granted to John Earl of Bedford in 1552. The area of Covent Garden, devoted to the sale of fruit and vegetables, has since 1680, the year when it was first laid out as a square by Inigo Jones for Francis the fourth Earl of Bedford, experienced many vicissitudes. What the original design of Inigo Jones was for the square or "market-place" may be gathered from the few vestiges we have of it, though Mr. P. Cunningham seems to think the square was never completed, if fully designed. The Piazza, as designed by Jones, is said to have been suggested by the square at Leghorn; the colonnade was



first called the "Portico Walk," an appropriate name enough. The term then changed to "Piazza"—an Italian word for square or place—subsequently misapplied to the arcade, being out of place. Hollar's view of Covent Garden in 1647, looking in the direction of the church from Russell Street, shows the south-eastern part of the colonnade destroyed by fire, and in the distance the picturesque gabled fronts of Hen-i-etta and King Streets. Another picture, by Inigo Jones himself, at Wilton House, Salisbury, the residence of the Earl of Pembroke, shows the garden in its original state, with the tree in the middle; while Hogarth, in his "Morning," has immortalized on canvas King's Coffee House, under the portico of the Church of St. Paul's. The Square and Piazza figure also in the drama of the Stuarts. Gay, too, has given us in a few lines of his "Trivia," a vivid picture of the church as it existed in his day:—

"Where Covent Garden's famous temple stands,  
That boasts the work of Jones' immortal hands,  
Columns with plain magnificence appear,  
And graceful porches lead along the square."

The "famous temple" here spoken of is the present Church of St. Paul, whose columns and projecting cornice are noted for their Vitruvian proportions. The original structure was erected between 1631 and 1638, and forms the west side of the "Garden." The "graceful porches" are in allusion to the porticoes which ran along the north and eastern sides of the square, and which, for aught we know, were intended to have surrounded the area, and to have invested it with an air of truly Italian magnificence. Unhappily Jones's design was never completed, and if it had been it is probable the present square would have been a more attractive place. The present market was established by charter in 1671 granted to the Earl of Bedford. At that time a mere handful of salesmen tenanted the stalls and sheds, which were of the most temporary kind. Strype, one of the few topographical chroniclers of old London we can rely upon, speaks of it as it was in 1689, and Pepys in his "Diary" alludes to the locality:—"The south side of Covent Garden square lieth open to the Bedford garden, where there is a small grotto of trees, most pleasant in the summer season, and on this side there is kept a market for fruit, herbs, roots, and flowers every Tuesday, Thursday, and Saturday, which is grown to a considerable account, and well served with choice goods, which make it much resorted unto." The ancient boundary of the parish of Covent Garden was the subject of considerable contention some years ago, and a committee was appointed to investigate the limits. An ancient map from a survey made in 1686, and given in Strype's edition of Stowe's "Survey of London," clears up the matter, and helps us to form an opinion of the true extent of the parish, which was made a distinct parish by an Act of Parliament 12 Car. II., 1660. Stowe minutely particularises the inward boundaries of the parish and Bedford House, which is said to be "seated in the Strand, but runneth backwards, being a large but old-built house, having a large yard before it for the reception of coaches, with a spacious garden, having a terrace walk adjoining to the brick wall next the garden, and from thence received the prospect thereof." Bedford House was pulled down in 1704, and the result of the committee's investigations, and evidence adduced, shows that the parish establishes the claim to the site of Bedford House, though, by some irregularity, certain assessments to the land-tax were discontinued, and an injustice done to the ratepayers. Bedford House and out-buildings, from the plan we have alluded to, had one front towards the Strand, and occupied the sites of Southampton and Exeter Streets, the parish boundary circumscribing this property. Afterwards, early in the eighteenth century, great progress was made, though no permanent buildings marked the site of the present market; and contemporary prints show the square enclosed by a post fence, and having a column of the Corinthian order in the centre, which was taken away in 1790. During the time of the first Georges the vicinity was patronised by the fashion and learning of the day. Dryden, Pope, Johnson, Butler, Addison, Voltaire, Garrick, Sir James Thornhill, Hogarth, and Dance resorted to the neighbourhood, whose coffee houses and cellars became noted, and whose piazza was thronged by fashionable loungers. Sir Godfrey Kneller, state painter, lived near Covent Garden Theatre; Wilson, the painter, lived in the piazza; and Sheridan frequented the Piazza Hotel.

But the Covent Garden of the present day has a somewhat altered aspect. We content ourselves with noting some of the changes that have taken place during the last few years in

the locality. Its square is no longer crowded in the daytime by the fashionable, nor is it at nightfall the resort of footpads and Mohocks, as it was in the reign of George II. Shenstone and Gay have given a picture of life at that time; Shadwell's comedy of the "Scourers" shows the danger of the London streets at night early in the eighteenth century; and Mr. Cunningham alludes to the pranks played upon the watchmen of the time. All this has changed, and if we have other inconveniences to submit to, such as the overcrowded and uncleanly state of the streets round Covent Garden on market days, we are at least safe in our rambles, and our absolutely sanitary wants are tolerably looked after. To begin with the Garden, whose aspect our readers are all doubtless acquainted with. The market has lately undergone some improvements. The original structure, built from the design of the late Mr. Wm. Fowler in 1830, for the sixth Duke of Bedford, is more conspicuous for its granite colonnade of Tuscan columns which front the shops than for any striking elegance of structure. Indeed, few strangers would imagine from the precincts of this market that Flora was enthroned here, or that Nature here emptied her lap of produce. Considering it the central congress of the vegetable world, in which every variety of plant and vegetable, from the humble esculent to the choicest of flowers, may be seen, it can hardly be said to be a fitting receptacle since the erection of larger and more costly markets, and we hope the Duke of Bedford will some day expend some of the fortune accruing to him from this fine property upon its improvements. Lately, we are glad to see, a light iron and glass roof has been erected over a portion of the market, and we might suggest some improvement to the main arcade in the shape of glass panels, and a little decoration in the timber roof and clerestory, if the old structure is to remain. The centre arcade is very much too narrow for the present traffic, however well it may have answered its purpose forty years ago. No doubt an iron and glass structure, somewhat after the design of the Floral Hall, by Mr. Edward M. Barry, close by, would be more in unison with its purpose than the present basilican-looking building, with its flat kingpost, close-boarded roof, and its Tuscan clerestory. A well-proportioned centre vista of greater width and height than the present, and the transverse vista only developed, would meet the demand of the trade, though a slight encroachment would be made upon the side rows of shops. As it is, the new roof somewhat dwarfs the present centre building, though it provides shelter for a large area devoted to the sale of fruit and vegetables. The construction adopted, though exceedingly plain, is light and effective. The roof comprises the area between the centre arcade and southern row of shops. The ribs are semicircular, supported on round cast-iron columns resting on high bases, and are of plate iron with double flange, a light spandrel supporting the straight rafters. Running along the top of the roof is a raised ventilating skylight with glass roof, supported by smaller semicircular ribs springing from the larger ones with light spandrels, and having a wide overhanging roof. The side upright lights are composed of a series of semicircular-headed openings. The part of the main roof above the side shops forms a clerestory above the roofs, and consists of an arcade of light iron with a frieze panel of circles over the lights. Below this clerestory the pillars are cross-braced longitudinally by circular ribs with circle spandrels, each arch embracing the width of one shop. The ribs of the roof have round iron cross bracing to stiffen them lengthwise, above which the upper half of the main roof is glazed; below it is boarded. The glass is rough plate, fitted into light sash bars of T section. The iron ribs are coloured a light blue of two shades, and the pillars and bases are of buff and chocolate. The works have been carried out by Messrs. Cubitt. On the south-east corner, with its entrance in Wellington Street, the recent addition in the shape of a flower market is certainly wanting in character or expression, and its heavy front in no way suggests its purpose.

Confining ourselves to the square, we may notice that new buildings have scarcely replaced the old haunts. The "Bedford" still retains at least the external appearance it had when Garrick, Foote, Sheridan, critics, scholars, and wits frequented its coffee room. The late Mr. Timbs has popularised this once famous house in his "Curiosities of London." Its stone arcade, now painted, looks modern; but traces of its age are apparent on examination. On close inspection of the arcade near Evans's we found the groined arches have thrust out of perpendicular the rather slight piers which support the front of the hotel, and we should suggest that an iron tie rod or two be inserted. Probably the defect is not of recent origin. It extends through

the arcade, but it gives an insecure appearance. Close to this and at the end of the Piazza, is Evans's famous hotel and supper rooms, once a mansion dating from the time of Charles II., though afterwards rebuilt. Its fine carved staircase, painted ceiling, and new music hall—the design of the latter by Mr. Finch Hill—are features of interest, and are memorials of a past full of associations.

The Church of St. Paul on the west side of the market was, as is recorded over the eastern doorway, totally destroyed by fire in 1795, and was rebuilt upon the old plan of Inigo Jones by John Hardwick, the architect. Its architecture, familiar to the student of London antiquities, was much lampooned by that noted art-critic, Horace Walpole, for its barn-like overhanging roofs, and its Tuscan proportions. It is rumoured the Duke of Bedford intends to restore the church, and re-instate its old services. The author of "Hudibras" lies in the graveyard, and we believe a flat, almost undecipherable stone marks the spot near the east end of the north wall, though there is a conflict of opinion on this point. Other celebrities repose here also—among them Sir Peter Lely, the painter; Estcourt, Edward Kynaston, Wycherley, and Macklin, actors and dramatists; Worsdale, the painter; and John Wolcot, the satirist. We understand, on good authority, the tablet of Charles Macklin, the comedian, was taken down by the last restor. One of the latest and probably best adaptations of iron to architectural purposes is the Floral Hall at the north-east corner of the square, and which runs parallel and close to the new Opera House, with a covered entrance in Bow Street. This building seems to unite the floral and festive elements of the neighbourhood. We think its architect, Mr. Edward M. Barry, the architect also of the adjoining Opera House, successfully blended the Italian facade of his great building with this work. The project of forming a central flower market is due to Mr. Gye. On the rebuilding of Covent Garden Theatre, after its destruction by fire in 1856, the idea was realised by the present iron and glass arcade. Though designed as a flower market, such is the "irony of fate" that it has chiefly been used as a concert hall, and is now proposed to be turned into a skating rink. The size of this structure is belied by its contiguity to the Opera House, which completely dwarfs the proportions. Few who pass it believe it to be a structure divided into a nave and aisles 280 feet in extreme length, and having a frontage of 75 feet in Bow Street. The nave or central arcade is 50 feet span, and the aisles are each 12 feet 6 inches. The dome at the crossing of the roofs at the Covent Garden end is a conspicuous feature. The height of the circular ribbed iron and glass roof is also 50 feet to the crown, and to the lantern-roof ridge 70 feet. The ribs are 21 feet 6 inches from centre to centre, connected by light purlins, and are supported by twenty-four hollow columns from the basement on York stone slabs, 2 feet 6 inches square and 2 feet 8 inches thick, resting a solid bed of concrete 2 feet in thickness. At the springing of the arches in the hall enriched capitals adorn the columns, which are cast iron hollow, and the capitals perforated to ventilate the basement. The side avenues have lean-to roofs, and are connected to the main roof by ornamental spandrels. The hall floor consists of thirty-two arched girders, 18 inches deep, with two hundred others placed transversely, having flanges to receive hollow tile arches. The roofs are covered with bent Hartley & Co.'s glass, 21-in. to the foot. In the facades of this structure we have the circle as the leading element in the design. This figure is the predominating one in the circular-headed radiating panelled gable; it adorns the faces of the pilasters and spandrels, and, in fact, is visible everywhere. We may add Mr. Henry Grissell, of the Regent's Canal Ironworks, was the contractor. We admire the recessed panelled fronts within the projecting wide runs of open ironwork, which take off the usual fatness of iron buildings in a manner to be commended, and we have before hinted the value of this kind of effect in iron buildings. Let us wander through the neighbourhood so loved by Dickens and by Thackeray. Every street recalls the memories of literati, artists, dramatists, and notabilities of wealth or fashion. King Street and Henrietta Street can boast of Coleridge the poet and other residents of note. One of the old houses we visited in King Street retains sumptuous interior fittings—as mahogany doors and dados, handsome cornices, and massive mouldings. Garriek Street within the past few years opened up a thoroughfare to Leicester Square. Tavistock Street, partly on the site of the gardens of old Bedford House, according to a rare map from a survey of W. Lyborn, in 1686, was once the Regent Street of fashion; in it Defoe, the author of "Robinson

Crusoe," lived. Maiden Lane was noted for its "Older Cellars," a resort of "swells." Turner lived in the street now occupied by the extensive show rooms of Messrs. Cox & Sons, the decorators, and the well-designed Roman Catholic Church of the "Sacred Heart," opened by Archbishop Manning last year. Chandos Street is noted as having seen the first introduction of the "balcony," that English feature of our houses, which was first set up here, and was said to be the invention of Lord Arundel. Messrs. Benham & Froud have a warehouse in this street in progress of completion, from a design of Mr. Frederick Meeson of Adam Street, to which we shall refer further on. Southampton Street is associated with Garriek. James Street borrows its name from the Stuarts, and many other streets from the Russell family—all are deeply interesting, both on account of the pictures of old London life they open to our view, and the various architectural changes which they have undergone.—(*Building News*.)

### PRINCE OF APPLE-GROWERS.

It may not be known that we have in America an "Apple prince," whose income from his handsome Apple orchard on the banks of the Hudson river exceeds that of many bankers. He is a scion of British nobility and the chief among American farmers—that is, his lands are made to produce a better return to capital than in any other instance on record. Robert L. Pell, the gentleman to whom reference is now made, is the lineal descendant of Lord Pell, a peer of the realm, who obtained a patent for a vast tract of land in Ulster county, near the old town of Esopus. Mr. Pell occupies the ancestral farm, which contains 1200 acres, all of which he cultivates under his own personal attention. During the spring, summer, and the autumn he resides upon the place.

Mr. Pell's father, who was noted for his good judgment in agricultural matters, stopping many years in the little village of Newtown, L. I., observed two Pippin trees of English origin, whose fruit was much sought for. The one produced an Apple tinted with yellow and red, and the other of a green hue, the difference in colour being solely caused by the difference in the soil. He was so much pleased with the fruit that he determined to create an extensive orchard of a similar kind. The cuttings were obtained from time to time, trees were planted and grafted, and after many years of perseverance and labour the grand orchard was in existence. Mr. Pell then could show 200 acres planted with the Newtown Pippin alone, and containing 21,000 trees. He then remarked, if each tree should yield his son one dollar a-year it would be a handsome income. His plan, however, has been greatly exceeded, for some of these very trees have yielded eighteen bushels at a picking.

During Apple harvest about one hundred men are employed, and the work generally requires a fortnight. The rule is to pick the trees clean, and not to let go of an Apple until it rests in the basket. The latter are laid carefully on the ground, and the teamster picks them up with equal care, and conveys them to the Apple house. The latter is one of Mr. Pell's inventions, and he has four in use. They are spacious structures, perhaps 40 by 100 feet (such, at least, is my recollection from seeing one of them), and are what may be called two storeys high. The first storey has no windows. You enter by a wide door, and the Apples are seen covering the entire interior to the depth of 4 feet. The upper part of the building has a few windows, and the door is grated, so that when closed there is an ascending draught. The fruit will while in this place discharge a very large amount of moisture, and thus deliver itself from the chief cause of decay.

An Apple house at such a time is really a fine sight. In three days the sweating is done, and the draught removes the moisture. The fruit is then sorted, and all below a certain size are carted to the cider mill, while the rest are packed for shipment. They are placed in boxes, each of which contains one hundred of the best Newtown Pippins, and are at once shipped to Liverpool. Mr. Pell's fruit is well known there, and he has adopted the custom which prevails in the Orange and Lemon trade in this city—viz., selling it by auction. The sales are largely attended, and the Pippins from the Pelham farm are sold all over Europe. They sometimes bring 14s. a-piece by the box. Such is the value of a reputation, and in this point the Pelham fruit has for forty years been unrivalled.

Mr. Pell has 80 acres devoted to Grapes, which are in great demand. He has a peculiar way of placing the best (if there

be any difference) at the bottom of the basket; and hence his brand needs no recommendation. He has 800 acres under general cultivation, and with the assistance of improved machinery the work is done by nine regular hands, with an extra force during fruit-picking.—(*Boston Cultivator*.)

#### NOTES ON VILLA AND SUBURBAN GARDENING.

**KEEPING FRUIT.**—The fact that storing places for fruit are mostly of a very inconvenient and also unsuitable character, generally suggests to one that the greatest care is needed in gathering not to injure it in any way, and to take care that none but sound fruit be put away. Now, as there are various ways of keeping fruit, several of which I have tried through necessity, it will be as well to state how I have found it here answer. I allude only to Pears and Apples. Having at one time no fruit room, my first experiment was with storing them in vegetable and other hampers as well as boxes. A quantity of moss was procured and well dried, and afterwards beaten in order to free it from rubbish; it became thus very light and soft. The fruit after being gathered was laid out thinly for a few days, as most kinds of fruit will sweat a little. The bottom of the hamper was lined with the moss and a layer of Apples placed upon it; a layer of moss over these, which must be a very thin one—just sufficient to prevent the Apples touching each other; then another layer of Apples: in this way till the hamper was filled. There is a little air passing through them in such baskets, but for boxes I made several holes in order to have the air admitted. After being filled they were stood in a dry yet cool room, with the bottom clear from the floor.

It is most proper for only one sort to be packed in each basket, as the time of coming to maturity differs with the different kinds. They were protected from frost, and I must say they kept well. The stock not being very large they were all used by the early days of February, and were packed in October. There were six sorts, and of these the Winter Queening, Northern Greening, and Alfriston kept best. The following year, having more of them, a dark room was secured for them, in which many were laid in a heap, and others spread on the floor with clean wheat straw under and over them; others were put into small casks with clean oat chaff amongst them. This is valuable to keep them in when it can be obtained, it being very light, clean, and soft as silk, and in which the fruit kept uncommonly well. Others were packed into earthen vessels and covered with bran for an experiment, but the bran in time became musty, and the fruit had to be taken out of it. This room was at the top of the gardener's house, and was a dry yet cool room. The fruit, which laid in a heap, as might be expected did not keep so well.

One great object should be to keep the fruit in an even temperature, not, of course, hot and dry, but cool and dry; this will prevent the fruit from shrivelling. The fruit should be looked over twice, and if any signs of decay appear remove them. Generally speaking the dessert Apples, such as the Ribston Pippin and Pears of the larger kinds, are each wrapped in soft paper before packing away, and as a rule the late kinds of both Apples and Pears were unpacked a few days before wanted; and the Pears, especially if not ripe, were exposed to a higher temperature and full light to finish their ripeness. There is not a doubt that such a way of keeping fruit involves more trouble; but then where there is no regular fruit room, or if there is, and is not commodious enough to lay the fruit out thinly at first, the next best method is the one to choose.

In my present fruit room I lay the fruit on a layer of moss. I have used straw or hay; but the first is too hard, and with weighty fruit it bruises it, while hay soon becomes musty and imparts to the fruit an unpleasant flavour.—T. Biscoe.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### KITCHEN GARDEN.

We have not had any heavy rains since the end of July or very early in August, so that *Celery* has required good soakings of water. The earliest has been earthed-up a week or two ago, and is now ready for use; later crops will not be earthed-up while there is no danger of the plants being injured by frosts. We have had much of the best *Celery* spoiled through decay about midwinter and onwards, and have fancied that this was owing to its being earthed-up too early, and, perhaps, the mould might have been allowed to fall into the hearts of the plants. In earthing-up *Celery* care must be taken to keep the leaves together, and in an erect position; a good way is to tie the whole with a strip of matting, not too tightly, but only sufficient to keep them together. The mould ought also to be broken up finely, and should be dry. *Cardoons* are not much grown, but those who cultivate them will now be preparing to earth them up, so that they may come into use about the middle of October and onwards. A good way is to place some clean straw out to the required length in an upright position against the plants, and

then tie the leaves in with the straw, placing the mould against the plants with the same care as is required for the *Celery*.

Our work has been hoeing between the rows of growing crops, and digging vacant ground. Even the quarters that will be trenched have been dug over, for we disapprove of trenching a hard surface and throwing the earth in lumps down to the bottom of the trench. When the ground intended to be trenched has been dug over first, and exposed for a few weeks, the surface spit is then in the best condition to be turned into the bottom of the trench. Coleworts, Spinach, Broccoli, and all winter crops, even if there are no weeds amongst them, should be Dutch-hoed. Onions and Lettuce have been sown, the varieties being White Spanish and Brown Globe. The Lettuce seed was mixed with that of the Onions and sown with it in the rows. Of course, as soon as the Lettuce plants are strong enough they are planted out into the borders, where they usually stand well through the winter.

**MUSHROOMS.**—It is now time to prepare the material for the beds. The staple of this is horse droppings collected from the stables. The little straw that may be mixed with it will be of some benefit to the bed and should not be removed. The manure should be thrown into a heap or ridge according to the quantity. If large beds are to be made up the manure must be in ridges; it ought to be protected from rains, and must be turned over every second day, being careful to turn the outer part of the heap into the centre. When the rank steam has been thrown off the manure may be spread out to dry if it is too wet, and when it is spread out it ought to be turned over every day. The manure ought not to be wet when it is used for the bed. Many different methods have been recommended to make up Mushroom beds. Some make up the dung in ridges in the form of a triangle and spawn both sides, others have beds sunk into the ground; but the usual and best way is to make up the beds on stages erected round the house, on tiers one over the other. A 9-inch board is fastened to the front to sustain the bed in its place, and to prevent its component parts from falling off. The manure must be beaten down firmly, and when the heat has sufficiently declined the spawn is inserted, and an inch or so of fine loam is placed over the surface of the bed. Should the heat decline too much some dry hay or straw must be laid on the bed, and it is astonishing the effect this has either in promoting or sustaining heat. We fancy that much of success or failure in cultivating Mushrooms depends not so much on the heat of the bed as upon the amount of moisture contained in it; but we would rather err on the side of dryness, as the spawn will run in a dry bed, whereas an overmoist state of the manure will kill the spawn, and if it is ascertained that the bed is too dry water can be applied to it.

##### ORCHARD HOUSE.

It is now a busy time amongst the pot trees, as the largest proportion of them require repotting, and it is best to have this done as soon as possible after the 1st of September, so that the trees may become established before the leaves fall; if they do not, the probability is that some of the shy-setting sorts will not have a crop of fruit next season. It has been stated before that in potting it is sometimes necessary to reduce the ball of roots to a considerable extent, so that the tree may go into the same-sized pot that it had been in previously. In doing this a large proportion of the best roots are removed, but the house is kept close for a few days, and the leaves are frequently moistened with the syringe. Under this treatment fresh rootlets are produced in three days, and the check which the trees experience is beneficial rather than otherwise. Good clayey loam is essential to the successful culture of fruit trees in pots, and it should be used in the proportion of four parts to one of rotted stable manure.

The principal element of success in orchard-house culture is liberal supplies of water at the roots, and when large quantities of water are required the drainage should be perfect. We place the crooks carefully in the bottom of the pots, and over them some fibry loam from which the clay particles have been shaken. This prevents the finer portion of the compost from mixing with the drainage. In potting, the loam must be pressed in quite firmly with a wooden rammer, and finishing off at the top with some of the finer particles.

Nearly all the fruit has been gathered except *Desse Tardive* Peach and the very late sorts, such as *Lord* and *Lady Palmerston*, *Salway*, &c. These are very useful for furnishing dishes when the other sorts are over. *Desse Tardive* is the most certain in bearing, and it is an excellent sort. Plums are over except *Coe's Golden Drop*. We shall be glad of the fruit, as the flies do not attack it in the house, whereas out of doors they are attacked before they are ripe. Not being very successful with Pears either on the walls or planted out, it is satisfactory to be able to gather first-class fruit of the best sorts from the pot trees. *Doyenné du Comice* and *Chauumontal* are specially fine; nor have we ever before seen such good examples of *Beurré Hardy* and *Souvenir du Congrès*.

##### PLANT STOVE AND ORCHID HOUSES.

The plants were removed into the house early in the month.

after it had been painted, and we were rather afraid that the sun, which acted powerfully on the glass, would injure some of the plants, but none of them have suffered in the least. We admit air rather more freely at this season, and the plants are exposed to as much sunshine as they will bear. There is not so much moisture in the atmosphere from evaporation from now until March next year. We have been repotting some plants from pots which it is not desirable they should remain in through the winter, and young plants that have been struck from cuttings recently have been potted off. Amongst them are *Dipladenia Brearleyana*. Nearly all this class of plants have striking characteristics about them. Many are extremely beautiful, but this garden variety is the most magnificent that has yet been obtained. It strikes very freely from cuttings, but the young plants require careful handling during the operation of potting them off. The newly-potted plants must also be quickly returned to the place from whence they were taken, so that they receive no check to their growth. If the pots can be plunged a little, say to half their depth, in a bottom heat of 85° or 90°, they will start more quickly into growth. The potting material used is equal parts of turfy loam and turfy peat, with a liberal proportion of silver sand.

*Stephanotis floribunda* has also been potted-off from the cutting pots; the treatment and soil is the same. *Ixoras* are potted in peat entirely. We have also potted Ferns, *Adiantums*, and *Davallias*. Of the latter species *D. Mooreana* is the very best, if it is not the finest, Fern in cultivation, and being of rapid growth it soon forms a large specimen. Like all the *Davallias* the roots do not penetrate deeply into the ground, and if the ordinary pots are used they ought to be filled nearly half full of drainage, nor should the plants be potted deeply into the pot; the rhizomes should not be covered with the mould. Loam and peat in equal proportions is good potting material for it.

It has also been necessary to repot some of the *Orchids*. Small recently-imported plants that had been potted on their arrival into the smallest pots it was possible to cram the roots have made growths, and are now making plenty of healthy roots. This is always the most suitable time to repot. At this season especially a very small shift is better than placing too much material about the roots. Thus, plants in 8-inch pots should be repotted in 4½-inch, and other sizes in proportion. Thrips are the only insect pests that give us much trouble at this time; the difficulty is to reach them without injuring the plants. When *Orchids* are attacked we can only persistently wash them off by hand with soapy water. We have sometimes fumigated with tobacco smoke, but it is very dangerous work, as valuable plants have been much injured by the smoke.—J. DOUGLAS.

## HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

CRYSTAL PALACE COMPANY (Bees and their appliances).—September 21st to 23rd.—Sec., J. Hunter.  
LONG SUTTON.—September 22nd and 23rd. Mr. J. W. Swain, Sec.  
ROYAL HORTICULTURAL SOCIETY OF ABERDEEN.—September 23rd. Mr. A. J. Rennie, 128½, Union Street, Aberdeen, Sec.  
ALEXANDRA PALACE (Potatoes).—September 29th and 30th. Mr. P. McKinnlay, 23, Upper Thames Street, London, Hon. Sec.  
JERSEY.—Autumn October 18th, *Chrysanthemums* November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

## TRADE CATALOGUES RECEIVED.

Thomas Bunyard & Sons, Maidstone.—*Select List of Dutch Bulbs, &c.*  
G. Yates, Underbank and Royal Oak Mills, Stockport.—*Catalogue of Bulbs, Strawberries, &c.*  
Barr & Sugden, 13, King Street, Covent Garden, London.—*Descriptive Catalogue of Bulbs and Plants.*

## TO CORRESPONDENTS.

NOTICE.—Our pomological helpmate being absent we shall be unable to name fruits for three weeks to come.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

PLANTING HALF-STANDARD ROSES (C. C.).—Three feet will be a distance sufficient between Rose trees on stakes 2 feet high.

BOOKS ON GARDENING (C. S.).—The "Garden Manual," 1s. 8d., and Keane's "Indoor Gardening," and "Outdoor Gardening," each volume 1s. 8d., all free by post from our office at the prices quoted, would suit you.

PRESERVING FILBERTS AND COB NUTS (S. J. Cox).—We remove all the husks and place them in jars and boxes in alternate layers with damp sand. The jars and boxes are kept in a cold cellar. If you wish the husks to remain on, and the nuts for winter use only, have the sand quite dry.

INTRODUCTION OF THE POTATO (K. E.).—There is a portrait of Gerardes with a flowered sprig of the Potato in his hand appended to the catalogue of the plants growing in his Holborn garden. This was published in 1595. He states that he received the Potato from Virginia. We know of no earlier mention of its being in England.

FERN DISQUALIFIED (F. Petek).—The Judges were right; the specimen sent to us is not a native Fern, but is *Adiantum cuneatum* from Brazil.

SALINE MANURES (An Old Subscriber).—Each of our answers is correct. The last answer you refer to related to different salts.

TRANSPLANTING HARDY FERNS (Oliver P.).—The early part of October would be a good time to move hardy Ferns, taking them up with good roots and soil adhering, and giving a good watering, or you may defer the removal until early in March. Fern "seed" (spores), may be sown now, or so soon as the spores are ripe. They require to be scattered over a surface which is kept constantly moist, and they germinate sooner, and more quickly attain size by being covered with a hand or bell-glass. Ferns do not grow well in sandy soil unless of a vegetable or peaty nature, both of which retain moisture. To a soil of very sandy loam add a part peat and a part of rather strong yellow loam, leaf soil being useful.

CAMELLIA CASTING ITS BUDS (J. R.).—It may be due to a sudden check by the want of water (for once only being sufficient), but a more likely cause in your case is the exposure of the plant to the full sun, and a defective root action. Add some loam to your peat, at least half good turfy loam, and repot at once. Particulars of treatment you will find in the "Greenhouse Manual."

STANDARD OF MERIT IN CUCUMBERS (Idem).—In the "Cottage Gardeners' Dictionary" it is given as follows:—"Length not less than 18 inches; diameter, one-ninth of the length; colour, dark green; spines, black and numerous; bloom unremoved; circumference, circular and equal throughout; neck and nose, each not more than a diameter long; flesh, crisp and juicy; flower, remaining on the fruit."

WINTERING COLEUS (Idem).—For soil use three parts turfy loam and one part leaf soil. For wintering safely the temperature should be 45° to 50° from fire heat, watering only to keep fresh.

FRUIT TREES FOR EAST WALL (Salop).—The extent of wall you do not give, nor the number of trees required. *Pears*.—\*Jargonelle, Beurré d'Amanlis, \*Beurré Superfin, Gratiol of Jersey, \*Urbaniste, Doyenné du Comice, \*Marie Louise, \*Beurré Diel, \*Beurré Bechellier, \*Gloire d'Orléans, Knight's Monarch, Winter Nellis, \*Josephine de Malines, and Ne Plus Meuris. *Plums*, *Dessert*.—\*Judy Green Gage, \*Golden Gage, \*Kirke's, Jefferson, \*Green Gage, \*Transparent Gage, and \*Ooe's Golden Drop. *Kitchen Plums*.—\*Early Prolific, \*Prince Englebert, \*Victoria, \*Pond's Seedling, \*White Magnum Bonum, Belle d'Orléans, \*Empress Eugénie, Frogmore Early Bigarreau, \*May Duke, and Late Duke. Those marked with an asterisk will suit if too many are named.

LIQUID MANURE FOR ROSES (H. C.).—Guano 1 lb. to a gallon of water is suitable, but neither it nor any kind of liquid manure ought to be distributed over the foliage of the plants, but upon the soil about them, and given in this way it will be beneficial.

CRINUM AMABILE.—PROPAGATING CENTAUREA CANDIDISSIMA (W. Bolton).—*Crinum amabile* requires to be kept during winter rather dry in a stove temperature, and would not, we fear, succeed in a house from which "frost were only kept out." *Centaura candidissima* is best struck in early spring in mild bottom heat, though it will strike in autumn in gentle top and bottom heat; the only thing to guard against is damping-off.

PIPING REQUIRED FOR CUCUMBER PIT (J. S. W.).—From the pit 86 feet long and 6 feet wide you will require two rows of 4-inch pipes the length of the house for top heat, which should be in front, or at least one of them, and the other in the pathway, not nearer the glass than 15 to 18 inches. It will have a pathway at the back of the pit, and this being 2 feet wide you will have a bed about 4 feet, and this will require two rows of 4-inch pipes. The pipes should be 18 inches from the top of the pit, and the top of the pit in front 18 inches from the glass. Altogether you will require about 160 feet of 4-inch piping.

STRAWBERRY PLANTS IN POTS (A New Subscriber).—The plants you have now in 8-inch pots will, unless strong and well rooted, be of but little value for fruiting in pots, as they ought now to be well established in the fruiting pots. If you wish to try them shift at once into 6-inch pots, and drain the pots efficiently, pot very firmly, using a compost of rich, turfy, strong loam, and after potting place them outdoors in an open yet sheltered position, placing them on ashes or other hard bottom, keeping well supplied with water, and removing all runners as they appear. They would succeed at the back of the house, but ought to be only half the distance you name from the glass.

CUTTING-IN CUPRESSUS LAWSONIANA (J. W., Aberdeen).—This very handsome Cypress stands cutting-in well, and makes a splendid screen, but it does not break well from the old wood, so that in cutting-back you will need to leave some green spray, and as evenly disposed as possible. When cutting-in is intended it should be commenced early, so as to prevent the plants becoming bare of spray or growing parts near the stem. We should cut-in moderately at first, and by removing the strong growths you will induce the spray nearer home to become more dense, and by annually doing so the size may in a few years be considerably reduced without interfering with the symmetry of the plants. The end of March or early in April is the best time to shorten the growths, or you may remove any irregularities now.

TIMES FOR OPERATIONS (H. E.).—The times recommended for performing operations, whether published in this Journal or the "Garden Manual," may be safely followed in any part of the British Islands. If we modified the times in any locality it should be in the far north, where we might sow a little later in the spring and a little earlier in the autumn.

ROSE LEAVES MILDWEED AND RUSTED (Miss E. H.).—Dust them thoroughly with flowers of sulphur, and keep the roots well watered and mulched. The *Ancuba* leaves excessively white are not uncommon.

**STORING PEARS AND APPLES (F. J.).**—Having no fruit-room you will be under the necessity of storing them in your coolest room, and if not dried by a fire in close proximity so as to make the air very dry, it will enable you to keep the fruit without shrivelling. It should be dark, and the fruit not exposed to strong light until ripening is commenced. The cooler the room the better if frost is excluded. Pears and Apples may be kept somewhat later than their usual period by placing them in pure dry silver sand in earthenware jars, placing them in a cold place; but this is chiefly applicable to late and not to autumn or late summer kinds. It is useless to expect "Williams's Bon Chrétien" ripe this month to keep until November or December. No Pear will keep long after it is ripe, and this is not sought by the placing in jars, but the retarding of the ripening.

**ORANGE TREES (E. P. B.).**—We should place the trees in the house, and not keep it close, or otherwise give them any stimulus, but defer it until spring. It is likely you will injure the Vines by now keeping the house close and moist, and the Oranges must start into growth late another year from the present being perfected late. If they have not already commenced growth we should throw the house open, and keep them rather dry during the winter, starting in February, and when fairly in growth retub. If, however, they have commenced growth you will need to keep moist for a time, and lessen it as soon as you can after the growths are complete, not retubbing until spring, or until they are fairly in growth. Our advice is based quite as much for the good of the Vines as the Orange trees, and the viney being a cold one will need to be as dry as you can have it to ensure the thorough ripening of the wood.

**PLANTING HAUTOBOIS STRAWBERRIES (Flora).**—So many of the flowers being barren, is a peculiarity of the Hautobois, especially of the old sort. The only kind of Hautobois that can be considered prolific is the Royal Hautobois. Runners should be taken from fruitful plants only, and they may be planted now, but we should have preferred planting six weeks earlier, or so soon as rooted runners could be obtained. They should be planted in rows 2 feet apart, and 18 inches apart in the rows, with the soil well and deeply dug and enriched with manure. Water freely when the plants come into flower, but avoid wetting the flowers.

**SHRUB CULTURE (Idem).**—The spray sent is evidently an Olea, we think *O. fragrans*, which has not attained a size for flowering. Keep rather dry during the winter, not so as to cause the leaves to fall, affording a light and airy position in a greenhouse, and water freely during growth. The chief point to be aimed at is the well-ripening of the wood, and to secure this the plant may, after the growth is complete, be stood outdoors in front of a south wall, and have water only to keep the leaves from flagging. A compost of two parts fibrous loam, one part sandy peat rather rough, and a fifth of silver sand with good drainage, will grow it well.

**COST OF CONCRETE WALK (Rus).**—The price varies with the cost of material, and the carriage to where they are to be used. The lowest prices we know were 9d., and the highest 14d. per square. Consult someone in your locality experienced in such matters, describing to him the work and quantity to be done, which will influence the cost considerably.

**PRUNING POT ROSES (O. S.).**—Pot them now, or at the close of the month and remove to a sheltered situation, placing in a cold pit early in November admitting air very freely. Or they may remain out in a sheltered position with the pots plunged over the rim in coal ashes, and protection given with mats in severe weather. Prune them when taken into the house, if a greenhouse, early in January.

**VIOLA CUTTINGS WINTERING (Idem).**—They being well rooted now, we should transplant them to a sheltered place, planting in rows 6 inches apart, and the plants 8 or 4 inches asunder in the rows, and transplant to the beds in March. That would save you the trouble of wintering in a greenhouse, which is not necessary for such hardy subjects. You might, however, winter the Pansies in a cold frame, but the others are better outside.

**STRIKING CUTTINGS (Idem).**—Bedding Geraniums are best struck in the sunniest place you can command, and so are Felargoniums; but Pansies and most other bedding plants strike best by keeping close and shaded until rooted.

**CHAUMONTIEL PEAR IMPERFECTLY RIPENING (R. S. F.).**—We can only account for the imperfect ripening through your soil being heavy and wet, which does not admit of the fruit being thoroughly matured, hence it ripens "bitter" and speedily decays. This Pear requires a rich warm soil. Probably more efficient drainage of the subsoil would give greater warmth and higher maturity to the fruit. The present year we should not place the Pears in the fruit-room, or only for a short time, removing early in November to a room with a temperature of 50° to 55°, or a warm and moderately dry room and light. The bitterness may probably be evolved during the more speedy ripening process. We think your best remedy will be found in well draining the soil, making it not only drier but warmer.

**ACHIMENES (W. G. M.).**—We cannot name florists' varieties of any flower they are in regions and so nearly alike.

**PEARS FOR SOUTH WESTMORLAND (Le Grand).**—For pyramids and dwarf standards, two of each of the following:—Doyenné d'Été, Clifton des Carmes, Jargonelle, Williams's Bon Chrétien, Beurré d'Amanlie, Louise Bonne de Jersey, Comte de Lamy, Jersey Gratioli, Thompson's and Knight's Monarch. For south wall Duchesse d'Angoulême, Marie Louise, Beurré Rance, and Beurré Dial. Culinary Apples, two of each:—Gallie Odell, Keswick Odell, Cellini, Gloria Mundi, Alfriston, Blenheim Pippin, Dunsdown's Seedling, and Northern Greening.

**CHERRY-TREE LEAVES CATERPILLAR-EATEN (J. H., South Kensington).**—Dust them thoroughly with white hellebore powder, and syringe with water next day. Repeat the treatment if needed.

**SEEDLING PANSIES (Typo).**—They are only suited for borders. They have no special merit.

**NAMES OF FRUITS (Connaught Sub.).**—The Pear is Beurré d'Amanlie. (S.).—Your Peach is not a clingstone, and its leaves are glandless. It is the Early Tilton.

**NAMES OF PLANTS (T. P.).**—1, *Saponaria officinalis*; 2, *Silene Armeria*; 3, *Eupatorium cannabinum*. (J. C. N. and J. O.).—*Datura stramonium*, the Thorn Apple. (G. B.).—Both specimens are insufficient. One seems to be *Arenaria rubra* (*Leipigium rubrum*), the other *Sagina apetala*. (I. H. R.).—We cannot determine the species of *Eucalyptus* from specimen sent. (*A Lady in Chelsea*).—*Catalpa bignonioides*. (S. J. Cow.).—1, *Linum grandiflorum*; 2, *Plumbago europæa*; 3, *Salpiglossis* sp. (W. Bolton).—2, *Asclepias curassavica*; 3, *Tradescantia zebrina*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### DOUBLE BASKETS.

We hoped that the advantages accruing from the use of double baskets would have been so palpable to the committeeman as well as the exhibitor as not to need further comment. We thought that the subject only needed time to set itself right, and to a great extent this has happened. We never anticipated that every schedule would make a rule to allow the use of these double baskets, but we did think that the important exhibitions, the real poultry shows, would carry into effect an arrangement which is of the greatest advantage to all. We have watched with pleasure how many shows have given in and allowed several pens of poultry, as of Pigeons, to come in one package. We do not hesitate to say that Bristol owes a great portion of its 1875 success to this new rule; and we find Oxford, who allowed the use of double baskets last year, but only came to the determination to do so after the schedules were issued, has this year introduced the new rule that "Several pens of poultry may be sent in the same package provided they are properly separated," which is a good proof that they found the plan answer. In the face of all this it is disappointing to find that the best chicken show schedule, on the single bird system, ever issued has kept to the old rule—viz., "Each pen of poultry must be packed in a separate hamper." We expected better things from the Alexandra Palace people, for the names on the schedules are those of men thoroughly *au fait* in all poultry subjects. We write for amateurs, and they are the people who feel this rule so much. The great exhibitors who send their servants with their baskets will never send each bird in a separate basket; but the amateur must either do so or risk the basket being returned or his birds not penned.

Carriage is a fearful item in the account book, and insisting on single birds being in a separate hamper is simply putting so much money into the hands of the railway people, who in return are always ready to be as disagreeable as possible. We cannot see what objection to the plan there can be. Of course all birds in the sale classes must be packed separately; but for other entries, where say the price is £50, so long as there is a rule to the effect, it must surely be an advantage to the show people for two or three birds to be in one basket; and it stands to reason there would be much less trouble in moving about the baskets, and much less space required for stowage.

This is the sort of rule we should like to see inserted in all schedules, especially where they are arranged on the single-bird system, "Several pens of poultry may be sent in the same package provided they are properly separated and labelled; but the price of all such pens must not be less than £50, and every package must have a conspicuous red cross painted on the inside of the lid of the same. All pens entered at less sums than £50 each must be sent in a separate basket."

Now we think some such sort of rule would be a good one. We name £50 as a prohibitive price. A larger or lesser sum can be named at the option of the show authorities, or "not for sale" would, perhaps, answer all ends even better. This, too, would at auction sales save much time which is now needlessly wasted, for no such pen need be put up at all. The red cross would be of great use to the packers, for on opening the baskets they would immediately see the red cross, and would at once know two or more pens had to go into it, and would accordingly search them out and pack them. We suggest this red mark because we have heard some bring forward against the use of double baskets the possibility of only one or two of the birds being packed in the basket when the show is over, and the others which should also have gone into it being left basketless. Now the red mark would at once show this was a package in which more than one pen came, and it would be the packer's fault if the birds were packed wrongly. Those who send their pens at selling prices, or at such prices—say £20 or £25, at which they may be sold, will in the case of this rule being in the schedules only put such prices for the chance of sale, and they will consequently not so much mind paying the extra carriage. So very many birds are sent to our shows which no money would tempt their owners to sell, and this plan would be to them the greatest boon.

We have only to take a catalogue of a fair-sized show and count up the pens entered at £40 and upwards to realise the truth of this, and for such exhibitors to only have to pay half the general railway charges would indeed be a help in the balance sheet. As far as we ourselves are concerned we have worked at a show where the birds came in double baskets, and we can say most positively the trouble they saved was great. We are certain that, once the system got into full swing, the show people would realise the advantage of it as much as the exhibitors, not only in their entries, but in reducing the number of packers, porters, and such-like poultry show hangers-on.

We are greatly pleased with the success of the past few months,



and write in no way disconcerted. We go so far as to call 1874 the year of the "triumph of the double baskets," but we are brought to write this article at the wish of many poultry friends who, finding the old single-package rule in the otherwise magnificent Alexandra schedule, are nervous—not only about the baskets for that show, but lest other schedule-framers, ignorantly copying the rules of their stronger friends, should insert the rule also, and so destroy the work of the past year. Some exhibitors may feel a little anxious about their birds being properly repacked in the double baskets, or of their being sent wrong; to all such we say, Go on with your single baskets by all means, for though the rule may state "several pens may come in one package," it does not say they must, and so only those who themselves approve of the plan are in any way bound to act upon it.

Those who oppose this new system which we are urging may very likely have some minute difficulties to throw in the way, but we feel sure the advantages must entirely flood out the disadvantages, provided the divisions in the baskets are labelled correctly. In conclusion we must say we should be truly delighted if the good Alexandra people will take all we have written in good part and let the fancy know, for it is not at all too late, that several pens may after all come to their show in one properly-divided package at the exhibitor's wish. We feel quite certain they would get more entries, for the place is rather inaccessible from many counties, and the carriage money must necessarily be a high item in the expenses of exhibiting there. To all other societies now issuing or about to issue their schedules we thoroughly recommend them for their own interests to insert some such rule as we propose, as we are convinced that it must be a benefit to all.—W.

### ALEXANDRA PALACE POULTRY SHOW SCHEDULE.

THE opposition Palace has issued its poultry and Pigeon schedule, and the neat little book lies before us. There is a striking resemblance in its "get up" to that of the other Palace, but then the names of the Hon. Secretaries explain this. The Alexandra Palace certainly has commenced in a very satisfactory manner, the list of cups and prizes being a splendid one, and the names of the "management" are those of gentlemen respected and well known for being fanciers of the highest *morale*. We may safely prophesy a good meeting and an unique show of chickens. It is essentially a chicken show, not even the sale classes being open to birds which saw the light before last New year's day. Poultry have eighty-four classes, and twenty-eight cups varying in value from £10 10s. to £3 8s., the most valuable going to the Brahmas. Money may be had instead of plate. The entry fees are the same as usually charged at the Crystal Palace. Of the various breeds Dorkings, Cochins, Brahmas, and Hamburgs are nobly provided for, in some of the classes there being as many as eight prizes. The "neglected breeds" can indeed make this a place of rejoicing—it will be surely a perfect carnival for them. We find three classes for Polish with substantial prizes, two classes for Leghorns, two classes for Malays, one for Silkie, and a variety class with four prizes where Andalusians, Minorcas, and Sultans can play for a good reward. Bantams, too, are well provided for, and the sale classes are numerous with a lot of money spent over them. We shall expect to find many a good bird there; and as all specimens will be put up to auction we shall hope to hear that no exhibitor bought in his birds. Waterfowl and Turkeys have handsome prizes. The Pigeon classes are legion. It should be a superb show of Pigeons, for almost every variety has a class. The Judges are announced, and all good men.

Thus much for this fine schedule. We must not forget to mention one point where it stands out superior to the Crystal Palace—there is no Sunday work for exhibitors. We rejoice we have this great Show over on our side.

There is but one blot on its fair escutcheon, but that one is indeed a bad one—"Each entry for poultry must be packed in a separate hamper." This is positively ridiculous for a single-bird chicken exhibition.

We hope exhibitors will patronise the Show and try to make it a success; and we will endeavour to make the report, which will be found in this Journal of the same week as the Show is held, worthy of the birds we expect to find there.—W.

GREAT NATIONAL POULTRY SHOW at the Crystal Palace.—The Baroness Burdett Coutts, amongst her numerous other kindnesses to protect animals, is anxious to discountenance the exhibition of fowls that have been trimmed in any way, by encouraging those which are shown in their natural state, offers two silver cups for competition. The first will be for the best Game cock, any age, not dubbed or trimmed in any way, silver cup value £5 5s. The next will be for the best cock, any age or variety (excepting Game), not plucked or trimmed in any way,

which will include Cochins or Brahmas with vulture hocks, and Spanish or other varieties, silver cup value £5 5s.

### THE RECENT BIRMINGHAM SUMMER SHOW.

As Treasurer and promoter of this Show I am willing to submit to the subscribers and exhibitors the balance sheet of the third Show held at Aston on August 21st, which I am sorry to say has resulted in a nett loss of over £180, without saying anything of the labours of management, secretaryship, office rent, and numberless sundry expenses. These I am willing to lose, but I really cannot afford to pay the loss. I have four guarantors of £5, and I will give £5 myself in addition to all the expenses of management. This will leave a deficiency of over £105; and I am compelled to appeal to the exhibitors, and especially to those who have been successful, for their assistance in the way of subscriptions to aid me to make up this deficiency.

In originating the first Birmingham Summer Show ten local fanciers shared the liabilities with me, and the Show, though in other respects successful, resulted in a loss of £10 a-piece for us. The next year there would have been no Show had I not taken the responsibility entirely on my own shoulders. It was again a pecuniary failure, and I lost over £70 besides all the trouble, Mr. Piggott and my clerks doing all the work at my expense. This year I determined to make another attempt to establish an annual show, and I called several meetings of the local fanciers and endeavoured to get ten gentlemen to subscribe £10 each. I could only obtain four guarantors of £5 each, but the favourable arrangements I had negotiated with the proprietor of the Aston Lower Grounds induced me in spite of this to try a third time; and the splendid show of birds, splendidly shown, and a loss of £181 are the results.

Our prize list shows 342 prizes. Our exhibitors number 351; if each of these would kindly subscribe a small sum the difficulty would soon be overcome.—JAMES WATTS.

### TOO MANY BREEDS AT ONCE.

"Do one thing at a time and do it well" is a good motto. It has occurred to me that it would do no harm to apply it to poultry-breeding. In looking over your advertising columns one would be led to believe that a man's standing as a breeder depended to a great extent upon the number of varieties he could advertise. I have always thought that the highest excellence in any department of effort depended upon concentration of one's endeavours upon a certain fixed end. If this idea be a correct one, what is the result when a man distracts his attention and divides his efforts among six, eight, or a dozen different varieties? Can he attain the highest excellence in all? The standard of excellence in one breed of fowls cannot be made the standard for any other. For instance, what is excellence in a Brahma or Coochin would be deformity in a Game or Hamburg.

Every breeder should have a distinct ideal type of perfection, or what would be if it could be attained, of the stock he is breeding. How many of us have brains clear enough to conceive a dozen different types and work them out at once? Every man who has ever made a reputation as a breeder has confined his study to one or, at most, two breeds at a time.

Raising fowls and running them is a very different thing from breeding fowls and improving them. I believe that very few men really know more than one breed of fowls. True, many men are good judges of different varieties and breed; when they are brought before them; but this capacity to judge does not prove their proficiency as breeders of all the different kinds. I would object less to a man breeding different varieties of a class than to breeding different classes. There is a strong family resemblance between the different varieties of the Asiatic class, and the same is true of the Spanish class; but where a man desires to attain excellence as a breeder in either class he should omit the other. We do not sufficiently discriminate between the breeder and the mere dealer. To be the one requires study and patience; to be the other, some money and an easy conscience. Is this too sharply accentuated?

If ever poultry-breeding is to become a fine art in this country we must confine our efforts within narrower limits. I confess it shakes my confidence in a man as a breeder when he advertises a long string of specialties. What is a specialty? As I understand the term it should limit the breeder to a single variety. A specialty is a particularity—a limitation to a single thing. How, then, can a breeder have more than one specialty? Can we not do more to improve the poultry in this country by keeping fewer varieties and concentrating all our efforts upon improving them?

Aside from the foolishness of keeping too many breeds, the difficulty in many cases of keeping them pure is very great. I know well-meaning men of whom I would not buy eggs and expect them to hatch true to name. They think their fowls are pure, and never get together nor mix; but I presume many a



good rules that we advise exhibitors to send for a copy of the schedule.

### ST. IVES POULTRY SHOW.

The Huntingdonshire Agricultural Society met at St. Ives. It was a capital meeting, and the quality of the birds exceedingly good. The prizes were handsome, and several cups were given, the competition for which was strong, many of the northern exhibitors coming down to have a try for them. Mr. Nicholls awarded the prizes, and did his work very carefully, and therefore we heard of very little grumbling in any quarter, which is a good proof, for it does not take much in these days to set people off in that direction.

*Dorkings* had four classes, and the quality was very good; perhaps the adult class was the weakest, Coloured were first and second in it, and a nice pen of Whites highly commended. In chickens there were seven entries; the cup fell to a fine pair of chickens in this class, but we should be afraid of the cockerel's toes in days to come. Single cocks only brought two entries, and pairs of hens four; the two noticed pens being really fine-coloured birds. *Brahmas*, Dark, were a nice lot; the first-prize pair came from Creeting. They were exceedingly good, and won the Brahma cup deservedly; second also a good pen. In Lights the first-prize pen contained the cockerel first at Bath, at least we believe so, and here again he looked well; second also a nice pair of birds. In single cockerels or cocks a very fine young Dark bird won easily. *Cochins* made two capital classes; in Buffs a finely-grown pair of chickens won first, but we thought the colour was a little washy; second a good old pen of Buffs. In the next class very fine *Partridge* chickens won the cup; second going to old Whites of great excellence. *Game* had three classes; the Reds were a fair lot. In the Any other variety a very smart pen of Piles won the cup; they were good in colour and head, and very stylish in shape. Single *Game* cocks a fair class of seven birds. *Hamburgs* had four classes, and made up twenty-two entries. The Golden-pencilled were the best as a lot; with the exception of the prize-winner, which were mostly good and properly placed, we saw nothing very striking. A good pen of Silver-spangles won the cup; they were a smart pen of chickens. *Game Bantams* made up a dozen pens, but there was not anything wonderful among them. The first in the next class and the Bantam cup went to a capital pair of Silver-laced. *Spanish* only two pens, and neither up to much. The Variety class was good; a very smart pen of Black Hamburgs winning first, and a nice pen of Oréves second; highly commended good Oréves and Poindes. In the cross-breeds both the prizes went to large birds, evidently a cross between Brahmas and Dorkings; both pens were priced at 10s. per couple.

*Ducks* were very good; *Aylesburys* made a large and remarkably good class, the cup and donation fell here. *Bouens* were good, and must have been a hard class to judge, for in many pens the quality was very even. *Turkeys* and *Geese* were really two very good collections; the winning *Turkeys* very fine indeed. In *Geese* the cup went to Roehdals, and the winners deserved it.

*Pigeons* had only six classes, but the quality was splendid. Strange to say the Antwerp class had only one entry; as a rule this class is one of the strongest in exhibitions, and we cannot conceive why this pen was allowed to run over the course so easily on this occasion. Mr. Baker brought down fourteen pens, and as his reward carried home the donation from the Duke of Manchester for the best pen of Pigeons in the Show and the point cup. Messrs. Yardley and Nottage also sent large and good teams. None of them, however, were able to knock Mr. Walker's pair of Carriers out, and once more they scored first. The Fans were in beautiful trim, and the winners exceedingly good. The Variety class was most attractive, but why Mr. Baker's five pens in this class were all catalogued as "Fantails" history telleth not. We publish full awards below:—

**DORKINGS**.—1, J. Walker, Roehdale. 2, Viscount TURNOR, Shillingee Park, Petworth. 3, W. Morfill, Gooch. *Chickens*.—Cup and 1, Rev. B. Bartrum, Barchampton. 2, Viscount TURNOR, etc. Mrs. E. Wood, Clapton, Thrapstone. 3, R. Chessman, Westwell, Ashford.

**DORKINGS**.—Cock.—1, J. Walker. Hens.—1, Mrs. E. Wood. 2, Rev. B. Bartrum.

**BRAHMAS**.—Dark.—Cup and 1, H. Lingwood, Creeting, Needham Market. 2, W. H. Crabtree. Light.—1, M. Leno, Dunstable. 2, J. Long, Bromley Common. 3, F. Holmes, Farnham; W. H. Crabtree; H. Lingwood. 4, Viscount TURNOR. Any colour.—Cock.—1, G. B. O. Beeson, Easingw. Ware. *Cochins*.—Crown.—Cinnamon or Buff.—1, C. Sidgwick, Keighley. 2, J. Walker. Any variety.—1, C. Sidgwick. 2, W. Whitworth, jun., Longsight. 3, T. M. Darry, Gadeney.

**GAME**.—Black-breasted or other Reds.—1, J. Cook, St. John's, Worcester. 2, J. Mason, St. John's, Worcester. 3, Deacon, Oundle. Any other variety.—Cup and 1, E. Winwood, Worcester. 2, Deacon. Any variety.—Cock.—1, E. Martin, Southorpe, Farnham. 2, E. Winwood. 3, Deacon. *Spanish*.—Any colour.—Cock.—1, S. W. Hallam. 2, H. Pickles, Kirby. Silver-spangled.—Cup and 1, S. W. Hallam. 2, J. Long. 3, H. Pickles. **HAMBURGERS**.—Golden-pencilled.—1, H. Pickles. 2, A. F. Fankner, Thrapstone. 3, J. Ward, Barton Hill; W. H. Crabtree. Silver-pencilled.—1, H. Pickles. 2, J. Long.

**SPANISH**.—1, E. Winwood. 2, S. W. Hallam, Whitwick. **GAME BANTAMS**.—Black-breasted or other Reds.—1, D. C. Wingfield, Sibbury. 2, J. Mayo. 3, Deacon. Any other variety.—1, J. Mayo. 2, Deacon.

**OXFORD POULTRY AND PIGEON SHOW**.—This is on the 27th and 28th of October, and we regret that the Alexandra Park Show is fixed so nearly before it. However, the Oxford Committee will make arrangements to receive pens direct from the Alexandra Park. The Oxford prize list is very rich. Prince Leopold and others give cups, so that altogether there are forty-four for poultry and eighteen for Pigeons. Several pens may be sent in the same package. There are so many new prizes and



duction of the original type. As to the former, it is an established fact, and I quite agree with him. His plan for the latter is very good; and if committees and judges could come to such an arrangement it would, I feel sure, bring fancy Pigeons up to the old standard, which has not been improved upon in this country.

To return to the Jacobin. There is a new point besides the mane now named by some of our friends, which Mr. Weir does not notice. I purposely avoided naming it in my last paper, as I could not admit that such belonged to this bird. That new point is the rose. Until the present year (1875) I never heard of the rose on a Jacobin (the rose is one of the points in the Trumpeter). The so-called rose is caused by the ugly mane, which generally brings the chain to an abrupt termination, often stopping at the side of the neck from this cause. Now the great beauty of the Jacobin is the chain down to the pinions on both sides, or as much farther down as it can be got, tapering off on the lower sides of the breast. The whole characteristics of the head and neck of this bird should be of a rounded nature, all softened off. The hood should not appear to be gummed on to the head, but tilted forward easily and gracefully. The chain, like a lady's boa, divided up the centre over the neck, tapering to points; and the head pleasantly rounded, with a neat, small, well-set beak; and the bird is finished off by a fine taper from the shoulders, caused by the long flights and tail. I say with Mr. Weir that I have not for long seen a Jacobin "I would have as a gift," unless as feeders for young Pouters. They now do well for this purpose, as all cross-bred birds do. I have proved them. Fancy a pair of Red Jacobins bringing up three young Pouters at one time; such was the case with the last I had. They were of the mane and rose type.

Mr. Ure has the credit of bringing forward anew this subject, which must be of great interest to all Jacobin fanciers, and I hope he will give us a few more lines on it, as they may be the means of bringing out the ideas of some other of our friends.—J. HUIE.

### BEE GOSSIP.

HONEY, it may be said, is the ulterior object in apiculture, for a good harvest of it is pleasing alike to both amateurs and bee-farmers. For the last five or six years we have not been favoured with what we call a good honey season. In Scotland and Ireland the bee-keepers have been more lucky than those of England. If the weather be favourable for honey-gathering for a fortnight while the fruit trees are in blossom, and for three weeks while white clover is in flower, bees swarm early and lay up great stores. The clover season generally ends with July; August follows, making, to use the language of royalty, the moorlands "purple with heather." This purple heather yields to bees more honey, or rather yields it faster, than any other plant. When swarms rise in weight to 70 lbs. and upwards on the clover bee-farmers are satisfied. When such hives are taken to the moors they nearly gather their own weight of honey in fifteen days of fine weather. We regret that so few bee-keepers in the south send their hives to the moors.

Every year we send ours to the heather, a distance of twenty-five miles, and on their way to and fro they have to be re-shipped at Manchester. On three seasons of the last six years, while many were lamenting unfavourable results, our best first swarms rose in weight to nearly 100 lbs. each, from some of which we obtained supers of honeycomb weighing 80 lbs. each. Most, if not all, of this was gathered on the moors. Last year (1874) the bees had a good turn on the clover, and went to grouse-land in good condition; but on other seasons of late they were less fortunate on the clover, and had to fill their hives from the heather. Three years ago our hives were so well filled with heather honey that we cut some £30 worth of honeycombs from them without reducing their number. In cutting-out honey from hives kept for stock they are doubtless injured to a certain extent, for the spaces left empty by the comb-knife have to be refilled in spring by the bees, and thus they are hindered from coming to the swarming point so soon as they would otherwise. As a set-off we have "a bird in hand," deeming it good policy to take honey when it can be obtained. If the honey had not been taken that year it would all have been eaten by the bees in 1873, one of the worst seasons for honey-gathering ever known. In a few days our hives will come back from the moors, when the honey will be taken from all that are beyond 60 lbs. weight each. A hive 60 lbs. weight yields about 30 lbs. of honey. In heavier hives there is, of course, a proportionately larger yield of honey.

We would like to encourage all English bee-keepers who are seeking profit to keep large hives, and to send them to the moors every year. Those who resolve to do so will have to use cross sticks in their hives to support the combs on the way. Bar-frame hives, or hives of any kind without cross sticks, cannot be safely carried during the summer months. A Manchester gentleman who has taken a fancy for Ligurian bees has had two stocks sent him from the south by advanced and experienced

apiarians. One of the hives is a bar-framer, the other a common straw hive without cross sticks. Both hives came packed on the crowns in boxes with great care. The bar-frame hive was placed on four yielding indiarubber balls, but notwithstanding all the care bestowed in packing them, all the combs in both hives were shaken loose and detached from their holdings before they arrived, and lay in confused masses. The bees in the straw hive were the best marked Ligurians I ever saw, but they were suffocated and destroyed on their journey. It was sad to witness such injury and destruction. We are sending hives to distant parts, and never have such breakdowns. In a few days we shall send half a dozen hives to a gentleman in Perthshire. All will be prepared for the journey in fifteen or twenty minutes at most, and we guarantee their safe arrival. We simply nail the hives to their boards, ventilate them with fly-proof wire, and send them off in their natural positions without box or basket, or anything else to protect them. Cross sticks in hives are of great value to the bees while they are working, and of great advantage to the bee-master while he handles them, keeping the combs steady and secure on all occasions.

On taking the honey from our heaviest hives we first drive the bees from them into empty hives, and unite them to the bees of those we keep for stock. The stocks are thus strengthened very much, and made strong by numbers. We hear a great deal of talk about managing bees on the depriving system; but any system of management that saves the lives of bees may be termed a depriving system; and one kind of hive is as much depriving as another. The word as used is misleading, and should have no place in apiarian literature. The bees of our honey hives are all united to the stock hives; and the combs containing brood are put into a hive or box, and bees put amongst them to hatch the brood. These brood combs gathered from several hives, and laid in one, yield a large swarm of young bees, which strengthen many hives. The mortar of a building is the least costly, but it gives strength and stability to the whole; and from the refuse combs of honey hives we obtain swarms of bees, which give additional strength and power to hives that have to face the winter storms.—A. PATTIGREW.

### AN APIARIAN TREAT.

ONE of the pleasantest traits to be found among men of science is the hearty good feeling with which they welcome one another for a friendly chat on their mutual hobby, and a sight of the works and collections to illustrate it. Now my hobby, at least one of them—for I have several—are bees, and the occasion of a flower show at Horsham was a good excuse to pay a visit to a friend, Mr. F. W. Cowan, and see his bees and all belonging to them. Now Mr. Cowan is no ordinary bee-keeper, for he manages his bees as well as keeps them to such tune that the *Times* newspaper last year recorded his exploit of obtaining 907 lbs. of honey from twelve hives of bees. Not many people can beat this, so I went to see how he does it.

Mr. Cowan is happily situated in pleasant Sussex. The country around is naturally luxuriant, but not that I could see marvellously favourable to the production of honey. Moreover, the bees are in the town—open country behind it is true, but still there are shops and breweries near, where many workers must be attracted to their destruction. There is one grand feature about Mr. Cowan's bees different from most people's—that is, they are with few exceptions all in houses; not the poky stuffy little places called bee-houses, where the owner cannot get his head into, much more his body, but veritable houses! rooms 20 feet long or more. But I am getting along too fast, so will return to my starting-point, which was from the drawing-room window, into a beautiful well-kept garden, gay with flowers and artistic beds of foliage plants in the highest perfection, which having passed with a cursory glance only, I was introduced to the sanctum sanctorum of the bees, a fine old-fashioned substantial range of stabling, with servants' rooms over. In these latter were the bees, every window having one or more hives, about twenty in all, and every hive a covered way from its mouth to the outer world. If insects have an aristocracy I should say these bees belong to it. No squire of high degree could be better lodged or have more careful thought for his comfort. The hives are all home-made, but none the worse for that, for my friend makes all his own, and is the possessor of a circular saw. Knowing how to use it, it would take a good joiner to beat him in hive-making. The Woodbury pattern is evidently Mr. Cowan's favourite, although he has others. The hives are populous, many having already filled respectable supers, which will figure at our show, and nearly all the others have supers still filling. I should except a Woodbury observatory, which, with its six frames, is as usual unprofitable for honey, but instructive and valuable for observation. Ligurians are greater favourites than the common bee, and such a practical owner has no doubt not given them the preference without due consideration. One objection to bees in rooms that I have found, has been when the crown board is removed the bees fly to the window and are difficult to expel;

but the difficulty was met here by having the window-frame to swing like a fanlight. The bees thus were easily turned outside, and would fly home when no disturbance to the colony was going on. The windows could be closed, and feeding from the ordinary bottle pursued undisturbed by robber bees, and without causing undue excitement.

The secret of Mr. Cowan's success I apprehend is the good housing his bees obtain—thorough ventilation and unceasing care in stimulating feeding; each stock in the autumn is fed up to 80 lbs. contents. The body of the hive and the crown-board is raised about an eighth of an inch, so that a fresh current of air may be always passing through the hive. Some hives have even been wintered with the greatest success without crown-board at all. This bears out what I have before written on the importance of fresh air to bees as well as men. I asked Mr. Cowan if he liked "the quilt" covering, and received the significant answer, "I have tried it, but you see I do not use it." As soon as the severity of winter has passed the bees are transferred into clean hives with five or six of the centre combs, the hive being contracted to fit, and two frames at a time have the knife passed over to unseal all the remaining honey. In this state they are returned to the bees, which rouses them into activity. They seem to believe that spring has arrived, the queen sets about her important vernal business of egg-laying, and the excitement being kept up by a judicious provision of syrup, by the time spring really does arrive the hive has a teeming population ready to take the utmost advantage of fruit blossoms.

Descending to the ground floor we enter a storehouse or museum where all the miscellaneous apparatus of scientific bee-culture seems collected together, as well as hives and supers both in straw and wood; good sound skeps, large and small, with supers and ekes seldom used by our scientific friend, but improved patterns, offered gratis to the cottagers who will condescend to ask for them, in the benevolent hope of teaching them to benefit themselves; well-made, substantial, cottage Woodbury hives, offered as prizes at the flower shows, but which, alas! when won are more often sold than used by the winner; new hives ready for use upstairs when required, all ready for the good time coming. We pass on to the workshop, where we find a lathe, circular saw, and carpenter's tools galore, ready to do duty when required. Here we see a honey-extractor and a couple of pans of honey obtained by its use. This extractor figured at the Crystal Palace Show last year, and was by many thought to be the best exhibited, but I hope to find it beaten this year by the experience gained in the past. My host evidently has an impartial mind, for looking round I see various things which are evidently put aside as not up to the mark, among which are Abbott's frame-bar hive and Addey's column hive, the first with the seams drawn all apart with the weather, and the latter merely a couple of old cheese boxes lined with straw, price one guinea. I fancy buyer as well as hive is sold here.

After viewing a few skeps in the garden whose inhabitants are doomed to transfer to frame hives in autumn we terminate our apianarian treat, and with a passing glance at some excellent Crève-Cœur fowls and a short turn round the garden we adjourn to the house, where I find the same cultivated scientific taste displayed in collections of fossils, minerals, coins, insects, as well as philosophical instruments and cabinets, mostly made by Mr. Cowan's own hand. The sheering strains of the military band at the neighbouring flower show then moved us there, where we found much to admire in flowers and fruits.—JOHN HUNTER, *Eaton Rise, Ealing.*

### OUR LETTER BOX.

**CARRIER PIGEON AT SEA (W. S. and Others).**—It is quite certain that the inscription on the wing feathers must have been moulted off many times since the siege of Paris, but the owner may have renewed it after each moult to identify it as the bird that was then serviceable. We have heard of a Pigeon that had the loving memorial renewed on its wing annually, "Ellen's pet."

**TRANSFERRING BEES (A Beginner).**—First drive your bees out of their present hive into an empty hive. Then take out carefully every comb, and cut squares out of each piece of worker comb only, which you must fit into the frames of the Woodbury hives, so as to reach from the top bar to the bottom of the frames. Secure each comb in its place by narrow strips of wood nailed with tacks or brads to the frames, and crossing each comb in two places on each side. When all the bars with comb are arranged in their places put the Woodbury hive on its stand, and shake the driven bees into it. When all is quiet cover up and leave for a few days, only giving them a little food to quicken them. After a week or so you can take out each comb and remove the narrow strips wherever the combs are securely fixed to the bars. The others may be left on a little longer, or till the spring. This is not a good time to transfer bees unless you are prepared to give them 20 or 30 lbs. of sugar at least, and immediately.

**GOLDEN SYRUP FOR BEES (W. M. E.).**—We have never seen the "golden syrup" as sold by grocers used as food for bees, but as it is a kind of refined treacle or molasses we think bees would greedily eat it if presented to them. When sugar was higher in price than it is now we once saw a swarm put into an empty hive in September and fed with common treacle, nothing else. The bees half filled the hive with combs beautifully white, and were healthy

enough all the following winter. No evil resulted from the use of treacle in this case. By some apianarians treacle and brown sugar are considered too relaxing for bees as winter food. Apart from the question of expense, there is nothing else to fear from its use.

**HIVES (An Old Subscriber).**—We dare not answer your question as to which hives are best. The bee-keeping world would tumble over our heads—that is, all inventors and patrons of specialities in hives would pursue us with maledictions. We prefer and always use ourselves boxes of wood. Some are of an oblong shape to suit our bee house, with large windows on both sides and a small one at the back. They are of common deal. Also we have in use Woodbury bar-framed hives. For profit we should advise you to adopt a good-sized box, say 14 inches square, of inch deal (not red deal), and 9 inches high. This for the main hives. Supers should be smaller every way. As you have a bee house they need no other protection.

**STEWED WATER-CRESS (Annie).**—They should be placed in strong salt and water to free them from insects, then all the water drained off and the cresses put into a stewpan with a lump of butter and a little salt and pepper; a few minutes will suffice to render them quite tender. A little vinegar may be added just before serving, but this must be according to taste. The cress stew made thin, as a substitute for parsley and butter, is also excellent with boiled fowl.

### METEOROLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 6" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.					Rain.
1875.	Sept.	Barom. at 32° and Sea Level.	Thyrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
			Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 8		Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	0.100	
Fri. 9		29.939	64.9	61.9	S.E.	61.3	77.0	53.4	108.0	50.3	—	
Th. 10		29.918	61.5	64.5	S.W.	61.4	78.4	54.3	118.0	51.9	—	
Sat. 11		29.940	60.1	59.3	N.W.	61.0	80.0	49.3	87.4	45.6	—	
Sun. 12		30.206	63.8	57.5	N.N.W.	60.0	87.0	49.3	75.2	45.5	—	
Mon. 13		30.281	61.8	59.0	N.W.	62.4	76.0	57.3	119.0	55.0	—	
Tu. 14		30.245	68.0	60.9	N.N.W.	61.1	78.7	55.3	119.5	59.9	—	
		30.304	66.3	61.5	N.E.	63.4	74.4	57.5	126.0	54.9	—	
Means		30.104	63.6	59.3		60.8	73.4	53.6	106.4	50.7	0.010	

### REMARKS.

8th.—Unusually dark and beginning to rain at 8 A.M.; dark and Novemberish at times all day, but very clear nevertheless.  
9th.—Fine morning; cloudy at times all day, but with bright intervals.  
10th.—A most beautiful day; rather stormlike at 6 P.M., but fine after.  
11th.—Fine morning and very pleasant day, though sometimes cloudy, and at no time very bright.  
12th.—Dull in the morning, and rather so till noon, then bright and fine, but rather cool.  
13th.—Very bright soon after 10 A.M., and all the rest of the day very fine and warm.  
14th.—Another fine bright day, wind rather high and cool, but very pleasant.  
A very pleasant week, dry and moderately bright, but by no means hot. The mean temperature at 9 A.M. nearly the same as last week, but the range less, the nights being slightly warmer and the sun less powerful.—G. J. SYMONS.

### COVENT GARDEN MARKET.—SEPTEMBER 15.

THE supply of common fruits still keeps abundant at last week's prices; but household fruit is quoted at a rather better figure. Of foreign fruits Pines are quite over, but large quantities of Melons and White Grapes are arriving from Spain, as are Pears from France. The Hop season in Kent has checked the supply of Cobs and Filberts, consequently quotations are better.

#### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.	
Apples.....	1	0	1	6	Malberries.....	lb.	0	6	1	0
Apricots.....	dozen	0	0	0	Nectarines.....	dozen	1	0	8	0
Cherries.....	lb.	0	0	0	Oranges.....	100	12	0	20	0
Chestnuts.....	bushel	0	0	0	Peaches.....	dozen	1	8	12	0
Currants.....	1/2 sieve	0	0	0	Pears, kitchen.....	dozen	0	0	0	0
Black.....	dozen	0	0	0	Pears, dessert.....	dozen	1	0	0	0
Figs.....	dozen	0	6	2	Fine Apples.....	lb.	8	0	0	0
Filberts.....	lb.	0	5	0	Plums.....	1/2 sieve	1	0	2	0
Cobs.....	lb.	0	5	0	Quinces.....	dozen	0	0	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	6	0	0
Grapes, hothouse.....	lb.	0	8	0	Strawberries.....	lb.	0	0	0	0
Lemons.....	100	8	0	12	Walnuts.....	bushel	8	0	12	0
Melons.....	each	1	0	5	do.....	100	1	0	1	5

#### VEGETABLES.

		s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	6	0	Leeks.....	bunch	0	4	0
Asparagus.....	100	0	0	0	0	Lettuce.....	dozen	0	6	1
French.....	bundle	0	0	0	0	Mushrooms.....	pottle	8	0	8
Beans, Kidney.....	1/2 sieve	1	0	2	0	Mustard & Cress.....	panset	0	2	0
Broad.....	1/2 sieve	0	0	0	0	Onions.....	bushel	2	0	5
Beet, Red.....	dozen	2	0	4	0	Pickling.....	quart	0	0	0
Broccoli.....	bundle	0	1	0	0	Parsley..... doz. bunches	2	0	4	0
Brussels Sprouts.....	1/2 sieve	0	0	0	0	Parsnips.....	dozen	0	0	0
Cabbage.....	dozen	0	6	0	0	Peas.....	quart	1	0	1
Carrots.....	bunch	0	6	0	0	Potatoes.....	bushel	2	6	8
Cauliflower.....	100	1	6	2	0	Kidney.....	do.	8	0	5
Celery.....	dozen	2	6	0	0	Radishes doz. bunches	1	0	1	0
Coleworts..... doz. bunches	2	0	4	0	0	Rhubarb.....	bundle	0	0	0
Cucumbers.....	each	8	1	0	0	Salsify.....	bundle	1	6	0
pickling.....	dozen	1	0	8	0	Scorzonera.....	bundle	1	0	0
Endive.....	dozen	1	0	8	0	Seakale.....	basket	0	0	0
Fennel.....	bunch	0	8	0	0	Shallots.....	lb.	0	8	0
Garlic.....	lb.	0	8	0	0	Spinach.....	bushel	3	0	0
Herbs.....	bunch	0	8	0	0	Tomatoes.....	dozen	3	0	0
Horseradish.....	bundle	4	0	0	0	Turnips.....	bunch	0	4	0
						Vegetable Marrows.....	doz.	1	0	2

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	SEPTEMBER 23—29, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
23	Th	Aberdeen Show.	63.3	45.7	55.9	49	af 5	55	af 5	57	af 1	53	af 3	24	7 40	266
24	F	Length of day 12h. 1m.	63.1	45.5	54.8	51	5	53	5	57	0	26	4	25	8 1	267
25	S	Twilight ends at 7.47 P.M.	65.8	48.1	54.4	58	5	51	5	21	0	49	4	26	8 21	268
26	SUN	18 SUNDAY AFTER TRINITY.	65.7	48.8	54.7	54	5	48	5	46	1	6	5	27	4 42	269
27	M		65.8	44.8	55.0	56	5	46	5	8	8	19	5	28	9 3	270
28	Tu	Rudbeck died, 1702.	65.1	44.0	54.5	57	5	44	5	27	4	80	5	29	9 23	271
29	W	Alexandra Palace Potato Show.	65.5	44.8	54.9	59	5	42	5	48	5	40	5	30	9 43	272

From observations taken near London during forty-three years, the average day temperature of the week is 63.7°; and its night temperature 44.1°.

## PLANTS FOR OUT FLOWERS AND SPRAYS.

No. 2.



FOR purity of colour, sweetness, and usefulness for cutting from, the "Lilies" (which appears in ancient phraseology to be synonymous with the modern term "bulbs") must take a foremost position; and for fitness the rare, rich, gorgeous, or beautiful Orchids must pale into insignificance, as they, charming though they may be, are not within the reach of more than a few of the cut-flower-like class; but bulbs are within the command of all, and from this fact alone are deserving of first rank in any notes to aid in meeting a demand for cut flowers, inasmuch as among bulbs are some of the most useful for the purpose, and some of which will suit the means and requirements of all.

Some bulbs are hardy, the season of which is prolonged by the adaptability of many for forcing, and others are tender, requiring heat, which is all the claim many, and I must say most, plants have in general acceptance to be choice and rare. A value is put upon some subjects not from any merit, but from the cost entailed in their production. This is not taste, it is not other than setting it aside, knowing the prevailing love for uncommon things; and in this way many equally beautiful and not less suitable subjects are looked down upon, if not rejected altogether, because common. I am forced to this exposition because I shall have occasion to bring before my readers some of the most common of plants, of which the fitness for cutting are unprejudiced by vulgarity or coarseness.

The first plant that I will name is the ROMAN HYACINTH, single white, the flowers of which are delicately scented and profusely produced, each bulb sending up often (not always) three or four spikes of pure white flowers. It may be potted early in September, three bulbs in a 5-inch or five in 6-inch pots in turfy loam, with a fourth of well-rotted manure, and plunged in ashes in a cold frame, covering the bulbs or pots over with about 4 inches thickness of the same material, and left there till early in October, when they may be removed to the shelves of a greenhouse, where they will flower at the close of November or early in December; or they may be had early in November by forwarding in a light airy position in a warm greenhouse. I find if the pots and bulbs are not buried that when the roots are being emitted the bulbs are lifted, or some of them, which the burying material from the pressure upon the bulbs prevents. Bulbs potted about the middle of September and plunged outdoors for a month, then introduced to a greenhouse, will bloom early, or by the middle of December; and bulbs potted the end of September will, if not subjected to a higher temperature than an ordinary greenhouse, flower at Christmas and the new year. Too much cannot be said in praise of this beautiful and extremely valuable plant. It should be grown extensively where early flowers for cutting or plants for decorative purposes are in demand.

No. 746.—VOL. XXIX, NEW SERIES.

To succeed the Roman Hyacinth the PARISIAN HYACINTH is very useful, and potted, say a batch early in September and another at its close, and treated in the same way—i.e., plunging them in ashes for a month or six weeks before placing them in a greenhouse, they will flower in January or early in February, and are very pleasing. They may be had in various colours—viz., French Single White (Lily of the Virgin), French Single Blue, French Single Red (Coeur de Chair). There are also doubles—rose, dark and light blue, but they are not nearly so good as the singles.

Of the FLORISTS' HYACINTH I shall be understood when saying that they in the close spike are too stiff and formal, but some of the long and rather loose-spiked kinds are very useful and effective; and as no spring flower can vie with the Hyacinth, we should not be justified in other than advising their extensive culture for their great beauty, delicious fragrance, grand and varied effect. For cutting from the kinds known as "bedding" should, as they are less costly than named varieties, be extensively grown, both under glass and in the open ground, for succession. Bulbs which were last season grown as pot specimens, and taken care of afterwards, will if now potted be found to give flowers very useful for cutting.

BORDER HYACINTHS.—*Hyacinthus amethystinus*, with its sky-blue bells on a spike about a foot high, is very pretty, doing well in a border of rich loam, sandy rather than heavy. It has the form of the Wood Hyacinth or Bluebell, and flowers at the same time (April), varying somewhat with the season. The *Wild Hyacinth* (*Scilla nutans*), though it may be seen in many places in woods by the acre, and in hedgerows in some places in countless numbers, where the soil is a light sandy loam, at the close of April, is nevertheless very pretty, and is worthy a place in every garden. There are varieties—alba, white; carnea or rosea, rose; and a light-red kind, rubra. They do best in sandy loam, and when wild are most luxuriant where the soil is enriched by fallen leaves, but they will succeed admirably in strong loam.

GRAPE HYACINTH (*Muscari botryoides*), with blue flowers, and the white variety (album) are simply beautiful. *Feather Hyacinth* (*Muscari comosum monstrosum*) has a curious frizzled head or cluster of pale purple flowers, and is useful. The *Musk Hyacinth* (*Muscari moschatum*) is esteemed for its powerful musk perfume. STARCH HYACINTH (*Muscari racemosus*), rather larger than the Grape Hyacinth, otherwise bearing a close resemblance. They flower in March and April, and may be had earlier by potting in autumn, and forwarding in a position near the glass in a light airy greenhouse.

NARCISSUS.—Charming are the Narcissi for cut flowers; they last fresh in a cut state for a long time, the buds opening successively, and are sweetly scented. The whole genus, and it is an extensive one, is deserving of culture from the purity, chasteness, and beauty of the flowers, in combination with a fragrance that cannot fail to please. The flowering season is long, commencing in March and closing in June. There is such a host of species and varieties that I shall name only the most

No. 1408.—VOL. LIV., OLD SERIES.

desirable; not that all are not worthy of a place, but though all are gems, our purpose can be served by the varieties following. *N. bulbocodium* (Hoop Petticoat), which is fine in pots and good outdoors, the flowers golden yellow; and *N. bulbocodium monophylla* (White Hoop Petticoat), which are both very pretty, and the latter as yet scarce. *N. cernuus* (Silver Trumpet), white, is very beautiful, but it pales before the Double White Trumpet (*N. cernuus plenus*). Then the grand *N. pseudo-Narcissus grandipennis* (Double Lent Lily), and the Double Daffodil (*N. Telamonius plenus*), both having very double yellow flowers and large; the Dwarf Daffodil (*N. minor*) being far less, but none the less pretty; and Dwarfest Daffodil (*N. minimus*), with flowers not more than half the size, is very pleasing.

We now come to the *Orange Phoenix* (*N. incomparabilis aurantius plenus*), double yellow, with orange centre; Double Incomparable (*N. incomparabilis*), light yellow; Sulphurkroon (*N. incomparabilis sulphureus plenus*), double white sulphur base, large. These are all very beautiful—the Bush-leaved (*N. juncifolius*), with its bright yellow flowers, charmingly fragrant, being indispensable for association with flowers of less size, it being a dwarf small-flowered species; those fond of the curious will not omit the Cyclamen-like reflexed, dwarf, pale yellow *Narcissus triandrus*. Grandest of the genus is the Double Pheasant Eye (*N. poeticus plenus*), very pure in colour (white), and very sweetly scented. What the *Gardenia* is to the stove this is to the garden, and should be grown in quantity.

Of the *Polyanthus Narcissus*, the Paper White (*N. Tazetta papyraceus*), from its earliness is very valuable. It, and the Double Roman (*N. Tazetta romanus*), white, orange nectary, potted in September, and plunged in ashes outdoors until well rooted, and then brought forward in a light airy position in a rather warm greenhouse, or gently forced, will flower by, if not before, January. The *Polyanthus Narcissus* are good alike for indoor forcing or garden culture, and if not very highly forced, they being flowered in an ordinary greenhouse temperature, and taken care of after flowering, the bulbs flower well in pots a second year. Bathurst, primrose, yellow cup; Bazelman major, white, yellow cup, very fine and sweet; Gloriosa, white, orange cup, and large fine truss; Grand Monarque, white, citron cup, fine flower; Newton, yellow, orange cup, large truss and flower; and Sulphurine, sulphur, light yellow cup, are all good.

The whole family of *Narcissus* are so chaste that no disparagement is apparent in their association with the choicest hothouse flowers, and where cut flowers are in demand there should be representatives of this most beautiful of spring-flowering bulbs planted in quantity. Dainty they are not as to position, thriving well in the open as in partial shade, and in all soils in which stagnant water is not present, but best in rich loamy soil, sandy rather than clayey, and with a well-drained subsoil. In shrubby borders, in shady woodlands or grassy glades they are at home. All that is required is to plant the bulbs with the crown of the bulbs not less than 4, and not more 6 inches beneath the surface, and left to themselves they will continue to grow, flower, and increase.

Of the fairest and sweetest of the *Narcissus* are *Jonquils*. *Camparnelle* (*N. odoratus*), large, single; Double Sweet-scented (*N. jonquilla plena*), and Single Sweet-scented (*N. jonquilla*), are all of easy culture—all with yellow flowers. They require light loam, enriched with leaf soil, and well drained, and sheltered if grown outdoors; but they are chiefly grown in pots, three bulbs in a 5-inch, or five in a 6-inch pot, and treated like *Hyacinths* flower well in February onwards, being gently forced. The *Jonquils* have grassy leaves, and are fine as pot plants. Beds of *Jonquils* ought to be in every garden, the bulbs being planted 8 inches deep, and 4 to 6 inches apart, and not disturbed oftener than every third or fourth year.

All the *Narcissus* should be planted in October, and not later than early November, though it is becoming a practice to plant successionally, or as late as early January, with a view to later bloom. The bloom is, however, so long continued by growing the several varieties above named, that a succession of *Narcissus* bloom can surely be had during a fourth of the year without having to plant at times which tells disastrously upon the after well-doing of the bulbs.

**TULIPS.**—Beautiful and effective as these are for the garden and house decoration in the early part of the year, we are compelled to own they do not come up to the excellence required in a cut flower. Still they have brilliancy of colour, which may or may not be gaudy, just as some estimate bright-

ness and high colour; and whatever we may think of them when expanded, we are compelled to own them very telling in the bud state. The flowers of the *Duc Van Thol* are very gay and sweet. By potting early in September, plunging outdoors in ashes, or what is better, cocoa-nut fibre refuse, and introducing to gentle heat about six weeks afterwards, they may be had in flower at the close of November or early December. Expanded blooms are not chaste. These remarks apply to the singles. The doubles of course tell best when expanded. As I am not advising their extended culture for cut flowers, I need not trouble you with names, only the *Duc Van Thol* in its varieties among the singles, and *Blanche Hative*, *La Candeur*, *Rex rubrorum*, and *Tournesol* of the doubles, may be useful.—G. ABBEY.

## INTERNATIONAL EXHIBITION OF FRUITS AT GHENT.

A GREAT International Exhibition of fruits was opened at Ghent on the 20th inst., and formed one of the series of *Congrès Pomologique* of the *Société Pomologique de France*, which have been held annually in various places for a number of years past. In carrying out the meeting at Ghent the Society has been ably supported by the *Cercle d'Arboriculture*, who have come forward in support of the project with the energy they always exhibit in everything concerned in the advancement of the interests of horticulture and arboriculture. The result of the united efforts of these two bodies is a show of fruits representing the pomology of Belgium, such as, perhaps, has never been gathered together before. In the country of Van Mons, Bivort, Hardenpont, Esperen, and Grégoire, one naturally expects to see pomology in its best and brightest aspect, and in this case the expectation has not been disappointed.

The Exhibition, which is truly international, is held in the great hall of the Casino, a place familiar to British horticulturists for many years as the shrine of Flora and Pomona in Ghent. The whole extent of that space is furnished with thirty-five large tables completely covered with fruit. These consist principally of Apples and Pears—the season getting late for the "soft fruits," and the duration of the Show for a whole week being unfavourable to the exhibition of these in good condition.

These exhibitions of Peaches and Plums which are present are consequently very limited, and their condition not of the best. Among them we saw nothing that was new. Next in importance to the Apples and Pears, of which there is an enormous quantity, Grapes form the great attraction. In this class our countrymen, Messrs. Lane & Son of Berkhampstead, take the first rank, and were awarded the gold medal for fifteen varieties grown under glass. These gentlemen also received (*avec acclamation*) the silver-gilt medal for eight varieties grown under glass. These productions of Messrs. Lane & Son are familiar to our readers by the honours they have repeatedly obtained at our exhibitions at home. In the class for eight varieties M. Ambrose Verschaffelt, who in his retirement has not abandoned his former love for horticulture, is second with some good bunches, among which is a very good one of Foster's White Seedling. The second in the class of fifteen varieties is the Baroness van Loo-Malfait of Evergem, and these, too, are well grown, and would have formed fine large bunches if they had not been too much thinned. Certainly the best-cultivated of all the Belgian Grapes were those of Dr. Centerick of Audenarde, who received the silver-gilt medal for the best collection of twelve varieties grown under glass, and especially the bunches of *Muscot* Hamburg, Bidwell's Seedling, and Dutch Hamburg showed great skill and judgment in their cultivation.

Of the Grapes grown in the open air the finest collection was from M. Beeson of Marseilles. This consisted of varieties many of which were wine Grapes, and to this collection the gold medal offered by the city of Ghent was awarded. Among them we observed many of those that are cultivated in the vineries of England, and remarked what has often been stated before, that even in the land of the Vine Grapes are grown in a manner much inferior to what they are when produced under glass and with applied skill in England. Of the other exhibitions, whether it is that Melons are not relished by the Belgians, or that they are enamoured of a particular class of that fruit, we do not know, but of all the fruits that were exhibited we saw nothing which was so inferior in quality as the kind of that fruit. In England, as is well known, the Melon forms a very important article of cultivation in every well-regulated garden, and the skill bestowed upon its production is an object of rivalry among all our great gardeners. Judging from what we saw at Ghent this does not appear to be the case in Belgium. At this



season of the year in England, if a prize were offered for the best collection of Melons, the Show would be inundated with them, but here the class was vacant for want of competitors. There were a few Melons exhibited in general collections, but they appeared to be varieties of a common description—a sort of Cantaloupe with the deep longitudinal furrows down their side, and with the firm red flesh. We would commend the high cultivation of the Melon to our Belgian friends, and advise them to procure from England seed of such varieties as Beechwood, Golden Gem, Victory of Bath, Reed's Scarlet Flesh, Scarlet Gem, Trentham Hybrid, and others, which would revolutionise the culture of the Melon in Belgium; and if a little attention were paid to their cultivation, as has been done during the last few years to the culture of Grapes under glass, our friends will find that they have added another pleasure to their lives.

The largest and best exhibition of miscellaneous fruits sent by a private individual was that of Messrs. Baltet frères of Troyes. This occupied two very long tables, and contained admirably grown specimens of numerous varieties of Apples and Pears. The most remarkable specimen in this collection was a fruit of the Apple Managère, which measured 1 foot 7½ inches in circumference, and weighed upwards of 1 lb. 1 oz. A very large and fine collection came from the Société Centrale d'Agriculture de Belgique of Brussels, among which were remarkably fine specimens. But it would be needless for us to go farther into particulars than we have done. The Show is a very extensive one, and the collections are necessarily very similar, the classes varying only in the quantities which constitute them; and it will give some idea of the extent of the Exhibition when we state that it embraces upwards of twelve thousand dishes of fruit of all kinds. To specify in a report which must necessarily be short any great number of these would be impossible and to a certain extent unprofitable, for, as we have already said, the varieties exhibited are so often repeated in the various classes, that to do so would be to go over the same ground again and again. But before concluding we must notice a very large collection of seedling Pears shown by that indefatigable and successful raiser M. K. Grégoire-Nelis of Jodoigne, and to which the gold medal offered by the King was awarded. These were all shown under numbers, and as no names were yet given we cannot specify them.

We shall now conclude this notice of the Show by giving an outline of the schedule. It is divided into seven sections—First, miscellaneous fruits, and the highest honours here fell to Messrs. Baltet frères of Troyes for the collection already noticed, and to which the medal offered by the Royal Agricultural and Botanic Society of Ghent was awarded; the second, consisting of a gold medal, falling to M. Hago Courtrai and M. de Ghellinck de Walle of Wondelgem. The second section was for Pears; and for the largest collection of all kinds the gold medal, offered by the Federation of the Horticultural Societies of Belgium, was awarded to M. J. L. van Leekwyk of Antwerp. For the best hundred varieties of dessert Pears the first prize was awarded to M. V. Biebuyck, President of the Horticultural Society of Courtrai; for the best seventy-five varieties to M. Struelens of Grammont; and for the best fifty varieties to Count de Kerchove de Denterghem, Burgomaster of Ghent. The third section was for Apples, and for the largest collection the gold medal offered by the Government was awarded to M. Hago of Courtrai. The fourth section was for stone fruits, and as we have already said the exhibition was in these so weak that we shall not further remark upon this section. The fifth included Grapes, on which we have already commented. The sixth for miscellaneous other fruits brought no competitions; and the seventh was for various objects, including implements, &c., among which we saw nothing differing from what one usually meets with on similar occasions.

OCCASIONS such as these horticultural exhibitions would not be complete in Belgium if the pleasure and comfort of the visitors were neglected. The hospitality of our neighbours, which has become proverbial, was fully indulged on this occasion, and a series of banquets and excursions were projected and carried out, which contributed very much to the enjoyment of the occasion. Here follows the programme, which is enough to satisfy the most craven appetite:—

Sept. 19.—Nine o'clock, work of the Jury. Twelve o'clock, opening of the Exhibition. Two o'clock, banquet to the Jury. Five, concert at the Zoological Garden.

Sept. 20.—Reception of members of Congress at the Hotel de Ville. Twelve, installation of the Congress at the Casino. One, visit to the gardens of Count de Kerchove de Denterghem. Five, concert at the garden of the Casino.

Sept. 21.—Nine, sitting of the Congress. Two, visit to the gardens of the Baroness van Loo-Malfait and of M. J. de Poorter.

Sept. 22.—Nine, sitting of the Congress. Two, visit to the gardens of M. Jules van Loo and of M. de Ghellinck de Walle.

Sept. 23.—At nine, sitting of the Congress. At two, visit to the gardens of Meester de Ravenstein. At five banquet to Members of Congress. At eight, a concert at the Royal Society of *Mélanes*.

Sept. 24 and 25.—Continuation of the Congress and visits to the horticultural establishments of the city.

### TAKING-UP AND STORING POTATOES.

It is with much surprise that I have observed a general tendency to revert to the obsolete and useless practice of pulling the haulm from Potatoes to preserve them from blight. The plan is utterly worthless, and is a mere compromise upon the part of those who will not be convinced that the tubers may be taken up while the haulm is green in perfect safety without suffering the slightest deterioration in quality. The whole of my Potato crop has now been in the storehouse for upwards of a month. In quantity it amounts to about sixty sacks, and in quality is of more than average excellence. There are the tubers now exhibiting a little roughness upon the skin, it must be granted, but as firm and plump as could be wished. Let it rain, say I, and make the late-sown Turnips, Celery, and winter Greens grow, the late autumnal fruit to attain the fullest perfection of size and maturity, and an abundant herbage spring up in parks and meadows for our flocks and herds.

Those persons whose Potatoes are spoilt by rain this year deserve to suffer, for never was there a more propitious season. The crop sustained no check during its growth, frequent showers maintaining it in fullest vigour. As it attained full growth dry weather ensued; the ripening process went steadily on, and when it was taken up the soil was literally dust-dry. Much of the foliage was already of a dull brown and yellow tinge, and the tubers parted freely from the haulm. But the skin was much rubbed in the process of collecting and conveying the Potatoes to the storehouse, and this is the rub—this the stumbling block which Messrs. Dull and Dawdle cannot get over. Let me assure them that those of us who have now for several years adopted the early-lifting method, and thus escaped the ravages of disease, can no more afford to indulge in rash or speculative theories than they can. We are bound to succeed where success is possible, and in order to do this we strive to understand and avail ourselves of every advantage placed in our way by nature or science, applying such lessons with all due caution, but never hesitating to do so thoroughly when experience proves us to be right.

At the time of writing this (September 14th) I am fully aware that in my own neighbourhood the greater part of the Potato crop still remains in the ground. Almost all the haulm is dead, glorious weather prevails, and yet nothing is done. One can only conclude that those who so positively court failure have no right to complain when it comes, and to such I have nothing to say. Nor did I suppose it would be necessary to repeat to really practical men former statements in favour of the early-lifting process, when its immense advantages must be so patent, and especially when such men as "D., Deal," Mr. Wright, and many others, had also borne testimony to its value; but when it is gravely asserted that the disease may be avoided by pulling the haulm from the tubers, and leaving them in the soil, it becomes a positive duty to speak out.

As confirmatory evidence of the value of timely lifting I append an extract from a letter received this morning:—"The Potato yield is fine and abundant; I have 120 sacks housed, free from blight and in excellent condition."—EDWARD LUCKHURST.

### CROPS IN NORTH LANCASHIRE.

WITH the exception of a heavy flood at the beginning of this month we have had glorious weather in the northern districts during September, a second summer in fact, with a temperature ranging from 65° to 70° in the shade. This has done splendidly for the ripening of fruit, and the memory of man cannot reach back to a year of such plenitude of fine and well-ripened fruit. Fruit which, in other years, would have afforded matter for newspaper paragraphs is now completely unnoticed, from the simple fact that such is grown in every garden or orchard. Cabbage, Broccoli, in fact all garden produce, is very plentiful and remarkably well grown. At the recent Show of the Ulverston Horticultural Society, an old-established one, the judges remarked that never before had they witnessed

so fine a display of vegetables. Potatoes are exceeding our expectations, and very few diseased tubers are now being taken up. Market prices are 5d. to 6d. per 14 lbs.—BETA.

## STRUCTURES FOR FORCING AND PROTECTION.

### No. 2.

In a previous communication on page 200 I endeavoured, in reply to many inquiries, to submit in a concise manner some of the most simple forms of protective structures. A batch of other applicants seeking instruction suggests that something more than mere shelter is needed. The great majority covet something that is simple yet useful, economical yet efficient. They not only require structures which with much covering and great care will keep their bedding plants alive during the winter, but they wish to keep them in a comfortable and healthy state. To this end fire heat must be afforded in some form or other, for, as a means of winter protection, heat from fermenting material, as manure and leaves, can seldom be relied on. That heat is too moist, and subject to fluctuation by weather changes that, however valuable it may be in spring, it is not adapted for employment in winter.

Hot water is now the orthodox medium of heating glass structures, and withal it is the best medium, being sweet,

winter the soil is removed, and a lattice-work trellis is placed for bedding plants. It is admirably adapted for its purpose, and is inexpensive and substantial.

Fig. 59, though perhaps more showy, is still more simple, the flues being built in the walls; the fire communicating with the front, crossing one end, and continuing along the back flue. In this pit bottom heat, when required for Melons in the summer, is afforded by manure and leaves, and excellent crops are produced; *a* shows the soil, *b* the manure, *c* the trellis, and *d* the flues. In the autumn the soil is removed and a flooring of boards introduced, when bedding and greenhouse plants are safely and healthfully kept. These simple flue-heated pits are valuable adjuncts to any garden where means of heating by hot water is not provided and cannot be obtained.

The next figure is more pretentious; it is a section of a span-roofed house heated by flues. The flues are made to furnish both top and bottom heat, and between them are chambers (*a c*) which communicate heat to the beds *b b*. The flues are partly under the beds, to which they communicate heat by the

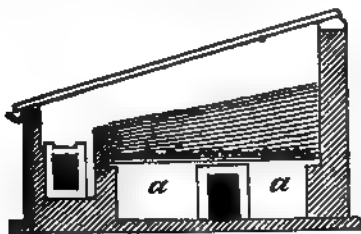


Fig. 58.—Heated Pit.

certain, and well under command; but as more than one correspondent expresses himself, "to wait until a boiler and hot-water pipes, is to wait an indefinite time," and he also wishes to know if "something cannot be done by a flue." I reply that a great deal may be done with a flue. A great deal has been done, and is being done, by the aid of this primitive mode of heating. Some of the best Black Hamburg Grapes that I have this year seen were produced by flue heat; and I have not seen a better house of Cucumbers than have been produced with the aid of the flue as the sole means of supplying artificial heat. But it is not because of what I have seen that I speak a word in favour of flue-heating, but because my own experience has afforded me proof of its usefulness. I say this for the benefit of those who desire heat in some form, and who cannot obtain a hot-water apparatus, but who yet can manage to have a flue erected.

Some years ago Mr. Abbey submitted plans by which I benefited. As near as possible I will reproduce them for the benefit of others. Fig. 58 is a very simple form of pit. It is shown with two flues, or rather one flue commencing at and running underneath the bed for bottom heat, and continuing along the front for top heat. The chamber *a a*, covered with



Fig. 60.—Flue-heated House.

spaces left between the flagstones and the sides of the beds, as well as by the chambers *a a*; whilst top heat is afforded by the sides of the two centre flues, and the heated air ascending from the openings *c c*. This house is adapted, if the beds *b b* are filled with tan, for plant-growing, or if filled with soil for Cucumbers, Melons, or pot Vines. When I say pot Vines I mean fruiting canes which have been grown in pots and then planted out to produce their fruit. By that simple mode very large crops of Grapes may be obtained, and to those who have seen them it is a matter of surprise that the bedding-out system is not more general. In the hands of amateurs especially it is more easy and satisfactory than fruiting the Vines in pots.

But while admitting the great usefulness of flues preference is given to hot water, and it may be useful to place the two systems as adapted for the same purposes side by side. Fig. 61



Fig. 59.—Flue Melon Pit.

flagstones, affords heat for Cucumbers in spring. In the

Fig. 61.—Hot-water Pit.

shows an ordinary pit heated by two hot-water pipes, *a a*, for bottom heat, which are surrounded by rubble, such as half bricks, &c., from 6 to 9 inches of the same being placed above them; the rougher parts of the compost are then put on, or a layer of charred turves an inch thick, so as to prevent the finer soil from passing into the rubble, and on that from 10 inches to a foot of soil, *b*, in which the Melons or Cucumbers are planted in the centre of the bed. They are trained over the soil in the same manner as those in dung frames. There are

two 4-inch hot-water pipes in front, at *c*, to maintain the proper degree of atmospheric heat, the soil being kept from them by a slate on edge, *d*. *e e* is the ground level. Except in being heated by hot water the pit does not differ from an ordinary one. In the winter the soil can be removed and boards or ashes introduced for affording convenience for wintering plants. That useful pit is also adapted for growing Mushrooms after the summer crops are removed if it is not required for plants. The surface in that case will need to be covered with hay. Another pit (fig. 62) has been submitted

Fig. 61.—Hot-water Pit.

by Mr. Abbey, but as I have not myself had actual experience of it, I will submit that cultivator's remarks:—Fig. 62 is "the end section of a pit heated by hot-water pipes, differing little from the preceding, except in the bottom heat being supplied by two 4-inch pipes to a chamber, *a a*, the soil being supported above by flagstones, which also form the upper cover of the hot-air chamber; two of their ends and sides rest on the outer walls, the other on pillars of brick or stone as *c*. The flags are not laid in mortar, but have the joints open. A few inches of rubble placed on the flags prevent the joints from becoming choked with soil. There are two 4-inch pipes in front for top heat; *c* is the space for a thickness of 1 foot of soil, and *d* the space for the plants; *e e* is the ground level. This mode of furnishing bottom heat by hot-air chambers is preferable to placing rubble over the pipes as in fig. 61, or soil immediately in contact with the pipes. The heat is more equable by the chamber system, and communicates to the soil above a much lower temperature; but the heat is greatest by the other plan immediately above the pipes, whilst the remaining parts of the soil are nearly cold. By the chamber system there is a large volume of heated air of an equable temperature throughout, presenting the same evenness as a bed of fermenting materials."

I now take one more step in advance to note a house which was erected for Melons, and which has afforded a great supply, not of Melons only, but Cucumbers, Figs, and Grapes. It has also been of immense assistance in plant-growing, and is in fact one of the most useful of structures for a garden of moderate requirements. This is simply a house with a half-span



Fig. 62.—Half-span Melon House.

roof. Bottom heat is supplied by two 4-inch hot-water pipes to a chamber *a*, and top heat by two pipes in front, and one to the left of the path in the centre of the house. *b* is a bed of soil. There is a trellis at *c*, and a bed at back (*d*) which is very useful for plants, yet of no value for Melons, but will grow Figs or Grapes, the latter in pots. Bottom heat is furnished to it by a hot-water pipe, *e*, covered with rubble.

In submitting these plans let me thank Mr. Abbey for the advice that many years ago he afforded me. I can now attest to the usefulness of these several structures. Their value has also been seen by others who have required plans. With the Editors' permission I now furnish them, being satisfied that as they have served me well that they will be also equally serviceable to others who are making inquiries for useful aids for protection and forcing.—COMPILER.

### NOTES BY THE WAY.

In going about on matters not connected with horticulture but with my own profession I contrive to pick up a few stray notes, which interest myself, not, perhaps, worthy of occupying a place separately in our Journal, but which strung together may have some little interest for a part of our readers. I paid my annual visit to Cheltenham in August, and both there and on my way home had an opportunity of stringing together some of these notes. Could I be at Cheltenham and not pay a visit to Mr. Cypher, who has so wonderfully come to the front as a planteman, showing what a real love for flowers can do, even although there may not be the benefit of a previous training? I had a run through his houses, and there saw the plants which have already done duty and were now being nursed and brought on to enter the campaign another year. Amongst other plants which he does so well, and which one rarely sees now-a-days, is that fine old stove plant *Gloriosa superba*. What can exceed its quaintness and gorgeous beauty? And while many a plant with not one-twentieth part of its claims to beauty is nursed and potted simply because it happens to be a novelty, *Gloriosa* remains, except in a few places, utterly neglected. Here it was very beautiful. The *Allamandas* were full of bloom and making grand growth; indeed, the same might be said of all his plants, and I doubt not we shall hear something more of them next year.

Dr. Abercrombie's garden in Suffolk Square was again interesting, notwithstanding the very unfavourable season. In his dry sandy soil very many things had failed, but his ribbon border was very fine, and he is evidently in the way of giving us some good things in Carnations and Picotees. We are already indebted to him for some of the best self-coloured varieties we have, for Maiden's Blush, King of Yellows, and Géant des Batailles cannot easily be beaten, and he is now striving in the way of florists' varieties. A Carnation raised by him and named Duke of Edinburgh, a fine scarlet bixarre, was sent out by Mr. Turner last year.

On my home journey I stopped at Reading and had the pleasure of seeing the establishment of the Messrs. Sutton, of which I have more than once written in the Journal, whose readers need not be told of the extensive character of the establishment and of the singularly complete arrangement of everything connected with it. And yet why say complete? I thought when I saw their new buildings last year that everything that was needed even for their colossal business had been done. What was my surprise, then, to find their excavators at work, and to hear that they had more builders' work on hand for the next two years than they had as yet undertaken. The first of these works is the erection of a store 240 feet in length mainly for their farm seeds and Potatoes; then their lecture-room is to be altered, and the "British Workman," a coffee house which they have erected for the benefit of their workpeople and others, and which has proved a real good to many. Time did not permit me to do more than visit Sutherlands, the seat of Mr. Martin Sutton, jun., where I saw one of the very best orchard houses (a lean-to against a wall) that I have ever seen, where the trees planted out were laden with fruit, and where alongside the walks a number of Tea and Noisette Roses had been planted and trained on wire, giving in the earlier months of the spring a splendid harvest of flowers. It is in such cases that the orchard house becomes really a great advantage—very unlike some that I have seen, where the plants grown in pots looked unhappy, want of watering being, I think, the cause from which they most suffer under such circumstances; but planted-out orchard houses, such as I saw here, seem to give us all that we want without the expense attendant on boilers and pipes.

From Reading I passed on to Slough, and who ever visited the Royal Nursery that did not find something worth looking at? We southern florists owe much to Mr. Charles Turner. But for him the *Auricula*, *Pink*, *Carnation*, and *Picotee* must have gone out of growth amongst us. He has fostered them

from sheer love of them, for his space and the time of his men could assuredly be occupied with things that would pay him better. But he has clung to their culture through pure love, and has exhibited them where no prizes could be obtained simply to show people what lovely flowers they were neglecting. The fine stock which he raises every year finds its way, however, mainly to the midland and northern parts of the kingdom, where certainly florists' flowers are more at home than in the south. I was here much interested in seeing some rows of what I believe will be found to be one of the very best Peas in cultivation—Dr. Maclean, so named by Mr. Turner to commemorate the name of a raiser to whom we are indebted for Little Gem, Princess Royal, Advancer, Best of All, &c., some of the best-flavoured Peas we have. Its productiveness is something wonderful. I saw it when two crops had already been gathered, and yet the pods there hung as thick as on an ordinary Pea. Mr. Turner, than whom there is no better judge, says it is an excellently flavoured Pea. It is about 3 feet high, and literally covers itself with pods from top to bottom. There is one thing I never cease to regret when going to Mr. Turner's in the autumn—viz., that he has abandoned, save in the matter of seedlings, the cultivation of the Dahlia. We miss his highly finished flowers at the exhibitions, and I can only hope that he will some day resume its culture.

Need I say that every department exhibited the care, skill, and neatness which always characterise this nursery? It is no light matter in such a season as this has been, and with the perplexities of the labour market, to keep a garden neat; but it has been done here. The pot Roses, Azaleas, Camellias—all, in fact, were in the rudest health; and the fine collection of Auriculas shaded by a fine row of Poplars were in snug summer quarters, giving promise of a fine spring bloom. By-the-by, why are not these Poplar hedges more used? I saw a grand lot of them at Mr. Ware's at Tottenham, and there is nothing where shade is required that makes a more effective hedge. Foreigners would perhaps laugh at us in England (where the greater number of them believe that the sun rarely shines, and that we are enveloped in fog for months together) for requiring shade; but in many of our southern counties there are gardens where it is most difficult to obtain it, and in such places no quicker or more effective hedge can be had than that composed of the Lombardy Poplar.—D., Deal.

## GREAT INTERNATIONAL FRUIT AND FLOWER SHOW AT EDINBURGH.

In submitting a report of this great Exhibition last week, we could necessarily not do more than give a brief record of the successful exhibitors in the most important classes. In that report a few unimportant errors had crept in in transmission by electric telegraph. It is only necessary to correct two. Mr. Hunter was made to be the winner in "light" varieties of Grapes; it should have been "eight" varieties; and Mr. Mathieson was awarded the Veitch Memorial medal for the best stove plant; the report was otherwise correct. Our further remarks will be commentary, descriptive, and supplementary.

The Exhibition was held in the Music Hall and Assembly Rooms, the plants in the former, and the fruit in the latter portion of the same edifice, but only a glance was needed to show that the Exhibition had quite outgrown the space which the large building afforded. The managers did their best—did, indeed, all that energy and skill could do—yet it was impossible to prevent undue crowding of plants, fruit, and visitors. We greatly fear that had southern managers to deal with the same amount of produce with the same limited means of staging it, that the Exhibition would have resulted in a failure, whereas in spite of the crowding this great gathering was a great success.

This success was directly contributed to by the energy of the Secretaries, Mr. Stuart and Mr. Young; and to Mr. Dunn, Dalkeith; Mr. Downie, West Coates; and Mr. Lamont in the plant department; and to Mr. Thomson, Clovenfords; Mr. LeClead, Newbattle; and Mr. Anderson, Oxenford Castle, in the fruit section. These are men who refuse to fail, and they averted failure by a determination to work the whole of the night, and to have all in readiness for the Judges by six o'clock of the morning of the Exhibition. This resolve was carried out, and the Judges were promptly at their duties at that early hour. The room was dingy, but by carrying the Grapes, &c., to the windows the work was persevered in, and the awards were attached before breakfast. This energy was most commendable, and one could not help wondering why a plan in all respects so good should not be adopted and carried out in all exhibitions of magnitude and importance.

The system adopted, too, was of the simplest, and the same, we believe, as that which is carried out at the Crystal Palace.

It is this: Each exhibitor's name is legibly written on the card which denotes the class in which he competes; this card is turned down and the class and exhibitors' numbers are written on the back of it, and the Judges give the awards to the respective numbers. An assistant, who has ready printed slips of "first," "second," and "third" prizes, turns over the cards and affixes them, and the work is done. For perfect fairness, smoothness, and celerity no system can be better; and by the side of it the plan of exhibiting under numbers and the consequent delay ensuing, to say nothing of its unpleasant suggestions, sinks into insignificance.

This early judging and prompt attachment of the awards enabled another most worthy plan to be carried out—of admitting gardeners, on payment of a shilling each, to inspect the Show during one hour and a half before the public admission at 11 A.M. The eagerness with which the gardeners availed themselves of this privilege proved how much it was appreciated. It seems almost incredible, but we state it on good authority, that £40 were taken in gardeners' shillings within the first hour of their admission. What earnestness and interest does that portray! and what sympathy it must call forth—it cannot be otherwise—between the managers of the Society and the men who are the mainspring of the success of that management! What a stimulus this reasonable concession must be to young gardeners who are permitted to enjoy a critical survey of the exhibits in their first fresh state! and what encouragement it is to more experienced men to feel that their efforts are appreciated and their position officially recognised in such a graceful and substantial manner! On grounds both of justice and policy this plan is commendable, and we draw attention to it as one of the most gratifying as well as one of the soundest features of management of this great Show. Another feature we must notice which is worthy of general adoption, and that is the payment of the prizes on the first day of the Exhibition. Such promptitude fosters confidence, creates sympathy, and in no small degree promotes success.

Judging, we have said, commenced at 6 A.M., and in half an hour afterwards we were enabled to quote the awards and note the characteristics of the successful products. This early judging contributed in a great degree to the success and enjoyment of the Show. It is an immense improvement on the old and too common system of not completing the awards until mid-day. The clumsiness of the latter plan was very apparent when thought of in connection with the business-like efficiency of the former.

The judging and weighing of the elephantine bunches was an exciting moment. Mr. Curror's compact bunch was marked by the grower as weighing 26 lbs. 4 ozs. It was transferred to the scale, and a shout ascended when the result was seen. In the excitement of the moment the weight was variously announced, one shouting 26 lbs. 1 oz., another 26½ lbs., and a third 26 lbs. 4 oz., but the official record was, we believe, 26 lbs. 4 ozs., and the Judges awarded the prize to this as the heaviest bunch of Grapes which the world has ever produced. The Vine was planted by Mr. William Thomson of the celebrated Clovenfords Vineyard, and carried, besides this monster, three other bunches, one of which weighed 18 lbs., and received one of the Veitch Memorial medals. The 26-pounder was a remarkably compact heavily-shouldered bunch, tapering to a point. It was very full and the berries good, thinning having been done with great care. Mr. Dickson's bunch, represented as weighing 25 lbs. 15 ozs., was apparently much the greatest in point of size, and as seen with its ponderous shoulders tied out covered an immense amount of space. The berries of this were finer than those of its great rival. It had clearly been overthinned when it is considered that the prize was for weight and not for quality. In the production of bunches in which weight is the primary consideration, it is clear that there must be little or no thinning of the berries. This was a forked bunch, but yet not unsightly. We shall next week be able to present an engraving of this gigantic bunch of Grapes from a photograph taken when it was hanging on the Vine. Owing to the extraordinary pressure of visitors it was hardly possible to make a critical examination of these bunches; they appeared, however, to be perfectly honest specimens of cultural skill, and if we judge them, as we must do, by the characters of the men who produce them, we must accept them as *bond fide* productions unparalleled in the history of Grape culture. In such a contest it was honourable to lose, but to win a triumph indeed.

The next great contest was for eight varieties of Grapes, won by Mr. Hunter. These were huge massive bunches of Gros Guillaume, Calabrian Raisin, Buckhardt's Prince, Muscat of Alexandria, Alicante, Royal Vineyard, Gros Colman, and Trebbiano. These bunches would range from 5 to 8 lbs. Mr. Johnson's (second prize) were smaller bunches, but the berries were, perhaps, finer, and the finish superior to the preceding. In this collection was a handsome example of Duke of Buccleuch and a grand bunch of Muscat of Alexandria, which worthily won a Veitch Memorial medal. Mr. Reid's (third) contribution was also of very high quality, the berries of Golden Champion being

pure and spotless, those of Gros Colman being of splendid size and finish, while the bunch of Mrs. Pince's Black Muscat was probably the most perfect ever exhibited; it was large, even in berry, and almost jet black to the stalk. Dr. Hogg and Mr. W. Thomson awarded a Veitch medal to this extremely meritorious bunch, of which it was eminently worthy.

The cup offered by Messrs. Boyd & Sons, Paisley, for six varieties of Grapes, brought forward some extremely fine collections. The competition between Mr. Stewart and Mr. Hunter was very close, quality, however, triumphing over size, and winning the cup for Mr. Stewart. Noticeable in these collections was the beautiful finish of Mrs. Pince, Muscat of Alexandria, Black Prince, and Black Hamburgh in the cup collection, and the ponderous bunches of White Tokay, Calabrian Raisin, and fine examples of Alicante and Madresfield Court from Mr. Hunter. For this collection a special prize was awarded. In this class valuable collections were staged by Mr. Bruce, Chorlton, Manchester, and Mr. Greig, Craighead Park. In the collections of four varieties were nine competitors, the winning collection (Mr. Loudon's) consisting of Black Hamburgh, Muscat Hamburgh, Black Prince, and Trebbiano of admirable quality, and in all the collections were Grapes of great excellence.

The baskets of Grapes were not of the same high standard as the other classes, and not equal to those exhibited at the Alexandra Palace Show. The names of the prize-winners were given last week. Neither were the Black Hamburgs, as a class, equal to those which have been exhibited in the south, although the winners staged produce of high quality and of medium size. The season, however, is late for this variety, which explains the rather poor show. Muscat of Alexandria was exhibited in fine condition, the bunches being generally full and heavy, and the colour all that could be desired. There were eight competitors, the winning bunches (Mr. Johnson's) being perfect examples of 5 to 6 lbs. weight. Muscat Hamburgs were large and full, but, excepting the winners, were not perfectly coloured. The heaviest would weigh about 5 lbs. Madresfield Court was splendidly exhibited from the neighbourhood of Manchester. The best would weigh 5 to 6 lbs., and were remarkably well finished. In this class, however, were some moderate bunches. For size, appearance, and quality this is proving itself one of the best of Grapes for late summer and autumn use. Black Alicante was staged in grand style by eleven competitors; Mr. Hunter's bunches weighing 6 to 7 lbs., the noble berries being as black as jet. This was the finest class of the exhibition, the whole of the competitors staging worthy specimens. Mr. Curran secured the prize for "bloom" with this variety. In the class for Lady Downes' Seedling thirteen competed. The bunches were generally small, but the berries remarkably fine both in size and perfection of finish. Gros Colman from Mr. Upjohn, Worsley, had noble and well-coloured berries, but the bunches were not large; and Black Prince was exhibited in splendid condition by Mr. Stewart. On the whole, saving the Black Hamburgs, it was the finest and most remarkable exhibition of Grapes, perhaps, ever brought together, and, if we mistake not, the best examples did not come from the districts noted for a low rainfall—a rather suggestive circumstance.

The collections of fruit were, next to the Grapes, the most striking feature of the Exhibition. Mr. Johnston's splendid collection comprised excellent Smooth Cayenne and Queen Pines, and equally excellent Black Hamburgh, Royal Vineyard, Black Alicante, and Muscat Grapes. Very fine Conqueror of Europe and Lord Strathmore Melons; also Royal George and Walburton Admirable Peaches, and Pitmaston Orange and Murray Nectarines of superior quality, with good Plums, Apricots, and Figs. In the other two collections the Grapes and Pines were generally very superior, but the small fruits were somewhat deficient in merit. The classes for twelve and eight varieties respectively resulted in sixteen admirable collections. In these collections the Melons were very good, and the Peaches excellent; Nectarines, Plums, Apples, and Pears all of superior quality, and Gooseberries remarkably fine.

Pines were not numerous but very fine. Peaches were great in size, numbers, and quality, some splendid fruit coming from Ireland (Courtown House). Nectarines, as a class, were not equal to the Peaches, yet the successful dishes were very superior. Of the former, Noblesse and Royal George were the best, and of the latter Pitmaston Orange, Elruge, Victoria, and Violette Hative were the most noticeable. Plums, of which there were upwards of thirty dishes, were uniformly good, but not quite equal to the recent grand display at the Crystal Palace. Green Gage, Transparent Gage, Kirke's, Dove Bank, Victoria, Diamond, and Pond's Seedling were in excellent condition.

Apples and Pears were represented by numerous very fine dishes, but these were not equal to the high standard of the Crystal Palace and Alexandra Park Shows. Of Apples, the heaviest were Lord Suffield, Warner's King, Gloria Mundi, and Ecklinville Seedling; New Hawthornden, Tower of Glamis, Dumelow's Seedling, Cellini, and Peasegood's Nonsuch were also in admirable condition. Amongst dessert kinds, Irish Peach,

Oslin, Cox's Orange Pippin, Red and White Astrachan, Kerry Pippin, Cornish Gilliflower, and Court Pendu Plat were fairly well represented, but they were much inferior to the culinary kinds in point of merit. Of Pears there were some capital dishes, the heaviest being Doyenné Boussoch from Mr. Cairns, Coldstream, and Calebasse Grasse from Mr. Barrie. Mr. Ingram, Alnwick, had the premier prize for Beurré d'Amanlis, Beurré Diel, Josephine de Malinas, Marie Louise, Beurré Leon Leclerc, and Beurré Rance, of each excellent examples. Melons were generally handsome table fruit of high quality; indeed, it was the best show of Melons of the year. Gooseberries and Currants were remarkably fine and very numerous.

In the miscellaneous class was a very fine dish of the Parsley-leaved Bramble. Messrs. Stewart & Mein sent a new Melon, Sir Garnet Wolseley, beautifully netted; Mr. Turner, Slough, Cox's Orange Pippin Apples and very fine Doyenné Boussoch and Duchesse d'Angoulême Pears; and a very good collection of tropical fruits came from Mr. Leslie of Munches, Dalbeattie, comprising fruits of Passiflora quadrangularis, P. macrocarpa, and P. vitifolia beautifully mottled; Monstera deliciosa, and Guavas. With the fruit closes that section of the Show which is the most generally interesting—a Show which reflects the highest possible credit on managers and competitors.

Of the plants it may be said generally that they were the best ever exhibited in Edinburgh. They were, considering the lateness of the season, remarkably fresh and bright. The stove and greenhouse plants in the prize collections of Mr. Syme and Mr. Stewart were in admirable condition. The dinner-table Palms from Messrs. Thyne & Co., Glasgow, and Messrs. Methven and Sons were glossy and elegant, and included the first varieties of the day; the first-price plants for table decoration from Mr. Currie, Salisbury Green, were also in excellent order.

Ferns were exhibited in splendid condition, the *Todea superba* from Mr. Green, Canonmills Lodge; Mr. Paul, Gilmore Place; Mr. Currie, and Mr. Clarke, being especially striking; the fronds were 2 to 3 feet in length, and in perfect health and colour. *Adiantums* were admirably exhibited, *A. Cardicblossa* being 5 to 6 feet in diameter, and plants of *A. farleyense* were in the first order of health. Heaths were in capital order from Mr. Glass and other cultivators, and a pot of *Lilium auratum* from Mr. Lothian, Dalrymple Crescent, Grange, attracted much attention; it was in a 9-inch pot, had seven spikes and over a hundred flowers.

Conifers of all the most rare and elegant varieties were exhibited by Messrs. Methven & Sons. The Lawson Seed Company had an extensive collection of fine-foliage plants, large and small, new and rare; Messrs. Gordon & Son, Murrayfield, had grand *Dicksonias*; and Messrs. J. & R. Thyne noble *Palma*. Messrs. Veitch & Sons, Chelsea, had a rich and varied collection of the valuable plants for which that celebrated establishment is famed; and Mr. Williams brought out the gems of the Holloway emporium, and when he does that a treat of no ordinary kind is always afforded.

Floriata flowers were numerous and remarkably fine. *Gladioli* from Messrs. Robertson & Galloway, Mr. Codling and Mr. Fenning, Morpeth, and Mr. Campbell, Mr. Ross, and other exhibitors were simply splendid; and not less striking were the noble *Hollyhocks* from Mr. Kerr, Chapel; Mr. Parsons, Beechwood; and McFarlane, King's Meadows: at any rate here were no semblance of disease. *Dahlias* were not superior, the best coming from Messrs. Downie & Laird. Mr. McMillan, Broadmeadows, and Mr. Hugh Mason, Belfast, staged excellent boxes of *Roses*; and Messrs. Dickson & Sons, Waterloo Place, *Phloxes* of great merit.

Bouquets from Messrs. Drummond Brothers, 52, George Street, and Messrs. Downie & Laird were excellent examples of tasteful arrangement.

Vegetables were good in all the classes, the Leeks especially being remarkably fine. Most of the vegetables were fully too large for table purposes, size rather than quality appearing to have been the point aimed at. Cucumbers for Mr. Munro's prize for the Duke of Edinburgh were of all sizes and of more than one sort. Mr. Stewart, The Glen, was awarded the first prize for an excellent brace of small fruits. Altogether the Exhibition was a great and successful gathering together of garden products, with fewer immoderate examples of culture than is generally seen in displays of the same nature.

We cannot close this report without once more placing on record the frank hospitality and generous munificence of our Scottish friends. The heartiness of their welcome was singularly refreshing; and the energy and earnestness of their efforts, and the bond of sympathy which exists through all ranks, is a sufficient assurance that future gatherings will be as successful as has been the memorable Exhibition which we have attempted to describe.

The banquet in the Douglas Hotel, presided over by Ballie Methven, supported by Mr. Syme, Mr. W. Thomson, and Mr. McIntosh, was complete and enjoyable. The various speakers—the Messrs. Thomson, Mr. Dunn, Mr. Syme, &c., representing Scotland; Dr. Moore, Ireland; Messrs. Veitch, Williams, and

Turner, England; and Dr. Hogg the pomologists of Britain, received a perfect ovation. We left the beautiful city of the north with the impression that "they do not do these things better in France"—nor in England.

### NOVEL HORTICULTURAL SHOW.

A NOVELTY in floral and horticultural shows has taken place at Lancaster, when an exhibition by gaslight of plants, flowers, fruit, and vegetables was held in the Palatine Hall, and was most successful in every respect, the entries being extensive, the quality of the specimens good, and the attendance of visitors very large. The novelty of the exhibition, no doubt, tended to bring about this result, as this was the first gaslight-show ever held in Lancaster, and the experiment will probably be repeated another year. The scene in the Hall was of a most brilliant description. The principal successful competitors in the open class were—Mr. Jas. Ireland, Mr. Gill, Mr. Wm. Parker, Mr. R. Clapham, Mr. R. Dods, Mr. W. Rainford, and the Messrs. Hargreaves. In the amateurs' class—Mr. J. Stewardson, Mr. F. G. Dale, Mr. W. Parkinson, Mr. W. Johnson, Mr. R. Moser, and Mr. W. Jackson. In the cottagers' class—Mr. T. Richmond, Mr. J. Metcalf, Mr. L. Bennett, Mr. Geo. Normanton, and Mr. Geo. Winter.—*BETA.*

### CARNATIONS AND PICOTEEES.

It was a real treat to read Mr. Horner's notes. He gave us such information as can be obtained nowhere else about these fine old flowers.

It is plain from his remarks about the dates of flowering that we could not have a truly national show. In Essex our blooms are at their best just a month before his in Yorkshire. The third week in July answers best for London: about that time the Royal Horticultural Society's Great Show of Fruit and Zonal Pelargoniums is announced, let us hope that this class of old favourites will not be forgotten in the rage for new and more easily-grown flowers. My reason for writing is to ask from your correspondent the favour of answers to the following questions:—First, a Carnation Show is announced at the Botanical Gardens, Manchester, September 15th and 14th, is it possible that a show can be held at that time? and how are the blooms obtained? Second, could Mr. Horner give a list of the best Carnations and Picotees for exhibition purposes? I quite agree with the remarks on dressing the flowers; there is fair and legitimate dressing which every exhibitor of cut flowers of whatever sort must understand, or he is not likely to be successful. Dressing that goes to the extent of "deceiving the public" is not legitimate, but I do not think it is often attempted. I well remember showing my first stands of twenty-four and twelve cut blooms of Chrysanthemums. I had touched the flowers up a little and had removed a few bad petals from some of them. On arriving at the room where the exhibition was held I showed the stands to a friend who had been long at the business. His remark was this—"You have splendid blooms, but they must be dressed. If you like I will pull them up for you." He did so, and on that occasion I think I stood highest on the list in both classes. Now, like Carnations, some of the varieties needed no artificial aid, others had the centres pulled quite out and the flowers pulled together with blocks; but no additions must be made to the flowers. If a flower has not a centre, one must not be put in. I presume that the flowers exhibited at the National are upon cards, as at the London shows.—*J. DOUGLAS.*

### GRAPES AT THE EDINBURGH SHOW.

THE following are facts concerning the respective weights of the first and second heaviest bunches of White Grapes. The first prize was awarded to J. Curror, Eskbank, whose bunch was said to weigh 26 lbs. 4 ozs., and when weighed in the show room it weighed 26 lbs.  $\frac{1}{2}$  oz.; while the second prize was awarded to myself, the Judges saying that my bunch weighed 25 lbs. 15 ozs. Prior to starting for Edinburgh my bunch weighed 26 lbs. 8 ozs., which can be attested by two witnesses. Not being allowed to be present at the weighing, I requested the bunches to be reweighed, but this was refused more than once within the two days. This seems a very strange procedure, and I leave the public to judge from these facts.

I object also to the first-prize Grapes being one bunch, as from what I saw myself it was two bunches, and I am backed in this by six of the best Grape-growers and principal prize-takers at the Show. I have had bunches of the same sort

over and over again, and I have always cut those parts away to prevent people saying it was more than one bunch. I should like to hear the opinion of two or three able men and parties that are not interested in either of the bunches mentioned. It surely ought to be known what constitutes one single bunch of Grapes.—*JAMES DICKSON, Arkleton, Langholm, N.B.*

### TAKING UP GLADIOLUS.

It is not often that I differ from so experienced a cultivator as Mr. Douglas, but I am compelled to do so as to his advice in last week's Journal about Gladiolus. He says, "In a large collection there are always a number of plants of which the stalks die off prematurely. The best way is to pull them up and tie them in bundles to burn. Some of the best growers consider this to be a disease, but it is probably nothing but degeneration, as no trace of disease is apparent in the corms." This degeneration in a previous sentence he explains to be the result of delicate constitution and of their cultivation in England.

Now for my reply. I send you herewith a root of *Celemene* which I imported this year from France. You will see the old corm has thrown up two shoots and formed two new corms, and you will perceive that they are fearfully diseased. Will you kindly look at them and then forward them to Mr. Douglas? The stalk has prematurely decayed, but the corms are diseased, and being newly imported bulbs it is not owing to their cultivation in England. I have observed the same premature dying-off in a seedling bed where degeneration cannot be laid to their charge. I do not like, if the bulbs are of a good sort, to burn them without close examination; and I am confirmed in this by a curious experience of last year. I took up some corms of *Madame Desportes*, a variety which it seems impossible to keep free from disease. At planting time they looked so scrubby and bad that I determined not to put them in my best beds, but planted them with some others in my kitchen garden. Strange to say they started into growth, and I have had some capital blooms from them. I therefore take up the bulbs when a plant dies off prematurely and examine the corms well. If they are badly diseased I destroy them; if only speckled I keep them on, hoping to secure perhaps some of them for next year.—*D., Deal.*

[This is a subject that "*D., Deal*," and I must agree to differ upon. He believes that the Gladiolus does not degenerate under cultivation in England. I believe that it does, and at a very rapid rate too. If your correspondent will discontinue importing for three seasons I believe he will hold the same opinion. The specimens sent are diseased and would never recover; those alluded to in the "*Doings*" were quite different. The bulbs were apparently sound, but they will never throw strong spikes again. They are afflicted with what might be called "the yellows." Many growers complain of the same. The late Mr. Standish told me that my bulbs would soon degenerate, and that I should have to give up their cultivation after a time; but I keep up a healthy stock from seed and by occasional importations. I may say that I have had bulbs die in the same way as the specimen sent, and amongst newly imported roots too. They might be from disease; degeneration is a different thing.—*J. DOUGLAS.*]

### BOURNEMOUTH, ITS SOENERY AND VEGETATION.—No. 1.

To the ordinary traveller who makes London his centre a journey by the South-Western Rail to Southampton, and beyond that place, presents larger tracts of waste unprofitable land than is to be met with on any other line that I am acquainted with in England. Certainly some of the Scotch railways pass through districts more truly wild, and consequently having a more picturesque appearance; but the waste land met with on the South-Western line from London has but little that is inviting about it, especially the portion that almost approaches the suburbs of the great metropolis. Though far from being sterile its vegetation is not luxuriant, and it is generally either flat or the undulations look tame, and, unless seen at the best period of the year, present but little that is cheering beyond the atmosphere which is no doubt exempt from the London impurities; but after passing the grief-stricken shadow of Woking a little more cheerfulness is infused into the landscape. Dry chalky hills show diligent cultivation, and trees and hedges look flourishing even if the grass land be burnt



up, which it is likely to be in dry seasons. Still prettier country is met with at Basingstoke, while the Ivy-clad ruins of a religious edifice close to the station attract the eye of the railway passenger on emerging from the station. The ancient town, or rather I should say city of Winchester, is surrounded by villas and residences vying with each other in taste and most likely comfort, suggestive enough of the peaceable times we now live in as compared with those in which Saxon and Dane fiercely contended for supremacy, very likely on the spot now so highly ornamented.

Journeying farther to the south, and passing through a district not remarkable in any way beyond the fact of seeing a sheet or two of water where least expected, we are at length brought up to a stand at one of the outskirts of Southampton, and water in great abundance is before us. The first view would almost make it appear as if it were a lake, for it appears to be surrounded by land; but a closer acquaintance dispels the idea, and the peculiarities of the vegetation on its shores attest at once its connection with the ocean. Neither is it at all inviting just at that point. The low muddy shore contrasts unfavourably with some sheets of inland water where a bolder coast line exists. But we have little time to take notes, and with the whistle of the engine we are off again farther south, but skirting this water as we go for some distance, and when we leave it we are presently brought into contact with extensive tracts of woodland or rather cultivated land profusely wooded, which, extending some distance, gradually brings us into that tract of country which the schoolboy and historian is more likely to regard with more importance than the traveller who passes through it. The New Forest, in fact, being perhaps the very oldest object to which the term "new" is still applied, for we are told it is fast approaching eight hundred years since it was so designated; but the term now seems more becoming, perhaps, than it was some centuries ago, as large portions of it have been newly planted, but to the unlettered traveller there is but little to see from the windows of a railway carriage that is at all interesting. Certainly the quantity of timber fit for ship-building purposes is very small indeed, while much that has recently been planted is Scotch Fir, large breadths being met with that appear to have been planted at various times, and is more or less thriving according to soil and situation, the former not always good—in fact I should say much of it only indifferent. But it would appear that some years back excellent roads had been formed, which being generally in straight lines and of great length must be of great service in traversing so wide a tract. Heathy wastes often occur with a few stunted Scotch Firs, but comparatively few Hollies or Birehes; and I do not remember noticing any Yews or Junipers, but doubtless they exist there, while the marshy spots present the usual herbage found in such places, with Alder, Willow, &c.; and probably the plant the ordinary traveller sees most abundant all over the place is the common Brake, which is met with almost everywhere, often contending with the Heath for the possession of those waste places which more robust vegetation refuses to occupy.

Passing over the remaining intervening space we reach our destination. Bournemouth, like many other fashionable watering places, owes its importance to its dry and healthful situation in addition to its excellent sea-bathing qualification. Bold sandy cliffs of great height have been washed into nearly a perpendicular condition, with sufficient sandy or gravelly beach at their base, free and safe to loungers in all conditions of the tide, excepting perhaps in extraordinary storms; and with a shore extending for some miles in this way is duly made use of by those who make a sojourn by the ocean a feature in life. The high cliff forming the coast is broken for a short distance by the narrow valley of the Bourne, a stream of no greater size than what a full-grown schoolboy would regard as only a good jump. It, however, has been turned to useful account, as will be shown hereafter, in aiding the embellishment of the place; and as it necessarily runs through the valley we may say that what may be called the business part of the town is mostly concentrated in or near the sides of the valley, while the residences of those who seek health and relaxation are mostly placed on the high table land on each side; and differing from most other places of a like kind, there are rarely two dwellings found united together, each occupying a site by itself, and in most cases I should guess from one to two acres is attached to each dwelling, the greater portion of that area being of course ornamental ground in the shape of shrubbery, lawn, and flower beds. Furthermore, it is only fair to observe that the ground originally appears to

have been a Scotch Fir plantation with an undergrowth of Heath, Brakes, &c. And as Bournemouth is the creation of the last quarter of a century or so, the design for its dwellings has been laid out with due care and attention to future effect—long straight roads wide enough for all purposes, with spacious footpaths on each side, the boundaries of which are sometimes Holly or other fancy evergreen hedges, or it may be ornamental iron railing. The dwellings, standing back all about equal distances from the road and 100 feet or more from it, give room for the closely shaved lawn, on the margins of which a sufficiency of Scotch Fir trees has been retained when the building was put up, and shrubs of suitable kinds introduced amongst them, with not more flower beds than seem needed for the due embellishment of the whole. Neatly kept carriage and back entrances of course are provided, while the residences themselves, being all of modern creation, are no doubt well designed for the families they contain. It is almost needless to say that architectural skill has been duly exercised in varying the designs, and endless are the diversities of form which two or three different colours in bricks and blue slates can be made to assume.

Such is Bournemouth, the winter residence of many who occupy an exalted position in the land, while to the casual wayfarer the accommodation for a night or two is not so good as that of many other places, and the roads leading to it do not pass many villages where the benighted traveller may take shelter. True the decayed old towns of Poole on the one side and Christchurch on the other are not far away, and act as landmarks to their fashionable neighbour rising about midway between them, and from Bournemouth the Poole road and Christchurch roads are important avenues, the latter in more sense than one, as the trees lining it overshadow the footpath, and render it very pleasant in the hot dry weather of the dog days; but enough has been said of the general features of the place. Let us now turn to the horticultural side of the case and see in what way the site is made to suit the various products generally required to constitute the ornamental; and although the place is still young in the sense in which towns are generally regarded, it is old enough, and there have been experiments enough to prove what class of plants seem to thrive best on the spot; and as it often happens that there is a something or other patronised more extensively in each place than in others, it may be said that Bournemouth seems more cosmopolitan in this way than many other places, and the anxiety which each may have to outdo his neighbours in variety has doubtless led to many things being tried that have been found not to answer; but on the whole shrubs of most kinds are sure to do well, and I need hardly say that a great preponderance seems given to evergreens, while deciduous shrubs are more scarce, but a few passing notes on such as do well will not be amiss here.

We have said that the general characteristic of the neighbourhood is sand, but sparingly intermixed with gravel, for even the seashore is not wholly covered with shingle, although cliffs from 100 to 200 feet high are washed down to produce the gravel. Sand of a pale yellow seems to have produced an herbage forming the thin tufty particles of peat on which the common Heaths grow with more or less vigour, and Scotch Firs when planted grow also, but not fast, and I do not hear much of their self-sowing and reproducing themselves as they often do in kindred situations.—J. ROBSON.

#### PORTRAITS OF PLANTS, FLOWERS, AND FRUITS.

*DRABA MAWII.* *Nat. ord., Cruciferae. Linn., Tetradynamia.*—"A native of Panchorbo in Old Castile, between Burgos and Miranda, where it was discovered by Mr. Maw in 1870, and introduced into his garden at Broseley and into the Royal Gardens of Kew. It flowered in the spring of 1873, and the fruit ripened for the first time in May, 1874. It is an excellent rock plant, of compact habits, bright green foliage, and red-brown buds, that are succeeded by crowded pearly flowers."—(*Bot. Mag.*, t. 6186.)

*CROCUS BORYI.* *Nat. ord., Iridaceae. Linn., Triandria Monogynia.*—"This pretty autumn-flowering *Crocus* is common in many of the islands, and on the mainland of Greece. We have specimens at Kew from Corfu and Cephalonia, and from Mount Parnes and Mount Corydalis, in Attica. It was first brought into notice by the celebrated traveller and naturalist, Colonel Bory de Saint-Vincent, after whom it was named by his friend Gay in 1882. He speaks of it as covering the mountains after the rainy season, from November to

January, flowering with the *Mandragora*. There are several closely-allied Grecian forms, as *O. laevigatus*, *Tournefortii*, and *Orphanidia*, of which we can scarcely judge whether they are species or varieties till they are watched side by side under cultivation. This one is characterised by its pure white unstriped flower with a yellow throat, and it is one of the few *Crocuses* that have white anthers."—(*Ibid.*, t. 6187.)

**WAHLBERGIA KITABELII.** *Nat. ord., Campanulaceae. Linn., Pentandria Monogynia.*—Flowers purple. "W. Kitabelii is a native of the Alps of Croatia, Transylvania, and the Banat, whence it was introduced by Messrs. Backhouse, who sent flowering specimens from York in May of the present year."—(*Ibid.*, t. 6188.)

**CHERRIES.**—"Two very fine and comparatively little known varieties of Cherry, belonging to the group of the *Geans*, from Messrs. Rivers & Son of Sawbridgeworth; ripe early in July.

"The *Early Lyons*, *Rose Hâtive de Lyons*, or *Guigne Hâtive de Lyons*, is a very large and handsome Cherry, which besides being excellent in quality has a very grand appearance for exhibition purposes. The fruit is roundish heart-shaped, with a faint depression or suture on the flattened side, and having the stalk, which is  $1\frac{1}{2}$  inch long, set in a rather shallow cavity. The skin is blackish crimson-purple, or glossy blackish mahogany colour. The flesh is of a very dark brownish-red, sweet, tender, juicy, and well-flavoured. It is an early variety, ripening naturally about the end of June.

"The *Ohio Beauty* is of a different character, belonging to the group in which the flesh is pale and the juice uncoloured. The fruit is large, roundish heart-shaped, with a faint suture. The skin is yellow, spread over with bright rich red on the sunny side. The flesh is pale yellow, tender, sweet, and juicy. It ripens about the same time as the *Early Lyons*.

"Both varieties are worth a place in every garden where Cherries are prized."—(*Florist and Pomologist*, 3 s., viii., 193.)

### ROSES ON THEIR OWN ROOTS.

In answer to a query with regard to Roses on their own roots, which I recommended, and which "*Cornubia*" thinks not likely to be generally successful, I have not had very much experience of my own lately, but some of my oldest-established plants, as of *Gloire de Dijon*, *Général Jacqueminot*, &c., are on their own roots, and do not seem inclined to wear out; and I know the late Mr. Perry used to succeed admirably with Roses on their own roots, encouraged to grow freely and pegged-down. I know it would not answer for many of the weaker kinds, but any of the stronger Hybrid Perpetuals would answer well with this treatment; indeed, one cause of the success of the *Manetti* as a stock is the fact that the Rose is buried below the union of the scion and stock, and the Rose tree soon becomes established on its own roots as well as having those of its foster parent to depend on. By parity of reasoning the cause why a Rose budded on the Briar has so often an ephemeral existence is that it only has the roots of the Briar to depend on, which too often is a broken reed—a mere hard lump, only fit to make into a pipe-head. Some Roses on the *Manetti* and some on Briars in a northern garden the other day, 600 feet above the level of the sea, made me more than ever an advocate for the *Manetti*, or perhaps made me more decidedly condemn the Briar. Only a few days ago a lady took me to see a *Maréchal Niel* growing against a south wall, to show it me and ask me why it did not go on doing as well as it did the first two years. The reason was too apparent; it was budded on a standard Briar, and the stock was hard and hidebound, and could not supply sap enough for the head, which had been vigorous, but was now dwindling. On the *Manetti* I have seen a *Maréchal Niel* make a stem  $5\frac{1}{2}$  inches in circumference in as many years.—C. P. P.

### HYBRID GRAPES.

It was stated in the *Journal* a month or two ago that the Marquis of Bute was planting a piece of ground on his Cardiff estate with Vines selected by his gardener in France, with the intention of putting the practicability of the open-air culture of Grapes to fair proof, &c. Would not a similar trial in Wales or the south of England of some or all of the varieties obtained in this country by crossing the foreign Grape (*Vinifera*) with the wild species of this country be worth the effort? Hybrids thus obtained are more healthy and hardy in vine, and ripen their fruit earlier than the foreign parent; and although the fruit may not equal that of the *Vinifera* in superior luscious-

ness for the table, it yet has a briakness and relish very palatable after dinner, and some are worth growing under glass. I have been experimenting in this way many years, have raised thousands of such seedlings from more than eighty different crosses, and have kept a record of every cross and every individual plant. To enable you to judge of the effect of this process on the quality of the fruit I will endeavour when it ripens, about October 1st, to get a cluster of a few kinds to you.

The varieties of the *Vinifera* will not succeed in any part of this country. They have been often and thoroughly tried, and have uniformly failed. They will not bear our winters in the northern section, and the mildew destroys them in every part of the country, even where the summer is warm and long enough to ripen the fruit.

The American Vines used in these experiments were of two species, as they are called, found growing wild in this vicinity. I do not think we have more than two species in this country, if indeed we have more than one. The *Labrusca*, *Vulpina*, and *Riparia* are clearly all one and the same species. They are found growing wild in swamps in freshwater meadows and on the banks of sluggish streams—localities where their roots are always in wet soil, and are submerged in many instances during the whole winter without injury. They are very rarely found on dry upland, and when placed there they do not thrive so well as in their native habitat. The fruit is large, varies much in colour from a light green to jet black; most varieties have a bloom, some have a strong musky odour, and others none of it. Some are comparatively tender and good, but most of them have a hard sour pulp enclosing the seed. They all have a pleasant but pungent juice between the skin and pulp.

The other species or variety is found only upon high ground. The fruit has no odour, is always black with more or less bloom, below medium size, of early maturity, with tender flesh and very acid and red juice. There is no constancy in the form of the foliage of either kind. The swamp variety generally has down on the under side of the leaf, and the hill variety is generally without it. There is, however, one characteristic common to both kinds: half, or more, of each kind found growing wild or raised from seed have infertile flowers with no pistillate organs. Other Vines of each kind have pistillate organs, but with stamens defective, short, and curved backwards, so that the anther is near the base of the pistil, and other Vines of both kinds have perfect flowers. Hybrids raised from this stock bear our coldest winters safely, and are affected but little, and some of them not at all, by mildew; and it seems probable that the American parent would impart the qualities necessary for a healthy growth in England.—GEORGE HASKELL, *Ipswich, Massachusetts, U.S.*

### THE STATUE GARDEN AT BELVOIR CASTLE.

THE statue garden is connected with the flower and pleasure gardens which are within the enclosed grounds that encompass the Castle. It is situated on the lower slope of the eminence on which the Castle is built, and is encompassed by forest trees, amongst which three noble examples of Silver Fir are conspicuous.

This garden has the effect of a framed picture looking through the arched opening that commands it from the path that runs along the edge of the steep grassy slope that sweeps down and surrounds the clustered flower beds that fill the lower part of the hill side.

A central bed and four subordinate vases mark the position of a large circular and four concentric beds. The four principal beds require one thousand large *Geraniums* to fill them.

Disposed about this garden are life-size statues of the presiding mythological gods and goddesses, sculptured by the father of Colley Cibber, the dramatic author. He was Caius Gabriel Cibber, a native of Holstein, living in England during the reign of Charles II. His most celebrated statues are the figures at Bedlam of Melancholy and Raving Madness. Most of the statues of the kings at the old Royal Exchange, many figures at Chatsworth House, and that of William of Wickham at Winchester College, are only a small number of his many other works. Juno rises dignifiedly over all; Diana with her hound; Flora wreathing flowers; Ceres scattering the rich gifts of corn; Pomona distributing her fruit; and Bacchus pressing the purple juice from the clustered bunches he holds.

Surrounded by lofty trees it is only in very dry seasons that a good display of flowers can be secured, shade and moisture



Fig. 64.—THE STATUE GARDEN, BELVOIR CASTLE.

inducing growth rather than blossom. Better effect can be secured in early spring, when hardy shrubs and bulbs make a charming display.

### PRUNING AND TRAINING FRUIT TREES.

SURELY many are too inclined to lay down general laws: one man advocates over-pruning, another hates the sight of a knife or a pair of scissors. There is no such thing as a golden rule, yet different soils and different climates make a corresponding difference in every kind of fruit. Then, again, while one kind of Apple or Pear will come into bearing earlier if pruned but little, another may be brought into bearing early by close pruning. Once get a fruit tree into good bearing, and let it bear one heavy crop, it needs very little pruning to make it bear afterwards. Then, again, nearly all fruit trees may be spurred, only if you try to obtain spurs on Peaches and Nectarines it must be done merely by pinching out the growing tops of young shoots. I quite agree with Mr. Luckhurst; so long as one can produce a healthy tree and good fruit, it does not matter a bit what the shape is or how it was trained. At all events, in the case of bush fruits or pyramids of Pears, Apples, and Plums, I care very little as to the shape, but merely cut as each tree may require it. In some gardens with wet subsoils root-pruning may be a necessity: with me it would be an abomination, except under very exceptional circumstances.

"W." in his interesting account of Cleveland House and Mr. Legge's general success, speaks of the fear of fungus in Vine borders from cutting away Vines and leaving the roots in. I believe fungus to be an easily-averted danger, and will never arise where Vine borders are kept sufficiently moist, and a little watering with liquid manure with diluted superphosphate will soon check it.

—Can anyone tell me how Gansel's Bergamot Pear is doing with them as standards or pyramids? I find the flavour much better and less gritty at the core than off a wall; and it is bearing very well on one young tree with me, and on another older tree it always has the peculiarity of never setting more than one fruit on a bunch.

My Seckles must this year have set nearly every flower. I have not thinned them, and they are growing eight to ten in a bunch, and on short-spurred branches where the flower buds were near together, they are clustered like Grapes, from twenty to thirty in a cluster. My crops of Marie Louise and Van Mons Leon le Clerc on two largish bush standards are laden from top to bottom, the branches bending down and overlapping. They ought, of course, to have been thinned, but large trees take too much time to have their crops properly thinned, and so they have had to take their chance, and I do not find that thinning bush standards much increases the size of the fruit.—C. P. P.

### ENVIRONS OF LONDON.

SUFFICIENT scope is afforded in this wide compass for a few remarks on ornamental gardening. The country seats of the nobility and gentry are centres of attraction to all. They are proud heirlooms of their respective families, and are, furthermore, spots which the great mass of the people cherish. By no class are the gardens of the great more highly esteemed than by the Londoner. For one day spent in these highly embellished enclosures he will prepare for half a year, and when the visit has been paid he enjoys a retrospective feast until it recurs. An old church, the blue sea, and a beautiful garden are magnet points of interest to the inhabitants of Britain generally and to the citizens of the metropolis particularly.

Another trait in the character of the Britisher is that what he likes to see he also likes to read about. How else could the literature of gardening be patronised to the extent that it is? Not only every great gardener but every little one must have his paper; and beyond all these, thousands who have no gardens delight to fancy they have a share in the craft by conning the current gardening lore which is weak by week provided. I am one of these. I am a citizen and have no garden—at least I dare not call it one in the columns of our Journal; yet I scan its pages weekly, and in fancy—only in fancy—seem to luxuriate in fruit and revel amid flowers. Still, if that fancy affords enjoyment what matters its substance or non-substance? I enjoy it and that suffices, and I believe—nay, I am sure—that I benefit by it, and therefore my enjoyment is after all something more than a vapid dream.

The Irishman, in one sense, was right who, after walking through Chatsworth Gardens, observed, "I am better off than the Duke: I enjoy them and he pays for them."

I am one who believes that such literature as the Journal, which I delight in, has not only done much for gardening and gardeners, but has contributed to the greater enjoyment of many homes by making these homes more attractive by investing them with charms of refining influence. Especially is this so in the adornment of suburban homes of every class. This literature (with the teachings of the public parks) has done wonders in stimulating a taste for gardening pursuits, also for perfecting that taste. The fruits of it are seen on every hand. Not only have great gardens by it achieved greater fame, but small gardens have been made models of attraction, and barren squares have been converted into plateaus of beauty.

In few things is the change greater (and that change improvement), than in the surroundings of the villa residences of the metropolitan environs, and of other business centres, during the past twenty years. Where, mayhap, was a Privet hedge, a Lilac bush, and a patch of weedy gravel, now are elegant vases, smooth lawns, striking Conifers, and bright flowers. The attractive force and high keeping of the little frontages of villa residences are amongst the most pleasing feature of the day. The management of these enclosures, and the taste displayed in their arrangement, is in the highest degree creditable to amateur effort.

I am led into these thoughts by an afternoon's airing. I wanted to revel in the fresh breeze. I thought of the sea, the forest, green fields, and flowers. The sea was out of the question, for I must be at my "breathings" in half an hour. The parks! No; I had been there so often. They are beautiful and I shall go again, but I desired something more novel and less formal. I wished to ruralise, and to do it quickly. "Go to Lee station" divined a genial spirit, "and from thence to Lee church and then anywhere." It was enough, being a new idea, and I followed it up as fast as limbs and train could take me. Emerging from the London Bridge station, flying literally over the housetops, the view was a dispiriting expanse of miles of chimneys and a canopy of smoke. By-and-by comes a change, but not much like the country I longed for, yet in fifteen minutes the fields burst in sight—soft hills of verdure, and the fragrant hay! That is the country almost within the precincts of the city, and I am shortly at my rendezvous—Lee church.

The old edifice is being restored. This is an age of church restoration, and is one of the happiest signs of the times. It denotes not only that the long past is cherished, and that the works of our ancestors are recognised, but that the still longer future shall have preserved to it a typical impress. Besides the memorials, the churchyard contains Weeping Willows, sorrowful by their drooping yet cheerful by their living green; Cypress and Cedars. But it is on the surroundings, of which the fine structure is the centre, that I would give a passing glance. The site is elevated and breezy, and elevated on the elevation are magnificent trees. The roads converging to this vantage point are veritable borders of foliage, and behind this green fringe are detached and semi-detached villas with frontages containing charming examples of miniature gardening. The very names are suggestive of the nature of the locality. Prominent is The Cedars, the fine place of Mr. Penn with its majestic Elms, its Ivy-capped wall, and fringe of Conifers. Even the outside view is imposing, for it is clear that the trees and grounds are well cared for and tended. Then there is "The Elms," "The Limes," "The Hollies," "The Lilies," and even "The Briers," with a multitude of "cottages" with tree or rural prefixes or affixes.

Many of these frontages are most attractive, and the owners would seem to vie with each other in good taste and good keeping. In one we find choice Hollies dotted over a faultless lawn, in another a stately Araucaria and cheerful lines of Pelargoniums and Lobelias; in a third is an elegant Deodar sweeping the ground with its graceful sprays. Then we find terraces, and vases, and window-boxes, and Ferns, and rockeries. These are examples which continually recur in what are not hard cold streets, but bowery promenades, for each garden has its fringe of overhanging trees.

The favourite trees are the Acacias. The compact yet elegant outline of these trees specially recommend them for fringes in villa gardens. For this purpose they should never be omitted. The Ailanthus (Tree of Heaven), is also employed, and its dignified grace renders it most appropriate. The Variegated Maple is often dotted in, and if in proximity to a small Purple

Beech its purity of colour is heightened. We find amongst Conifers, too, the Wellingtonia, the Cypress, and the Thuja aurea. We note walls draped with Roses, and Jasmines, and Clematis, and, above all, we find neatness and order, which betoken the owners' love for these gardens. It is this love and consequent care which brings out a garden's beauties and makes it a teacher and a gladdener—not to the owner only, but to passers-by. The charms of a garden consist not in its size but in its keeping, and those of "large views" may well take a lesson from the trim and faultless plots of many suburban homes.

But where am I? Actually thus cheerfully scribbling in my dingy office. I could not have been in this happy vein but for my afternoon's airing. Such is the influence of gardens not one's own. Those who possess them mayhap do not always recognise the good they do in fringing the suburban pathways with trees and flowers which cheer the hearts of hundreds. I am now ready for business again, and am the better for my visit and my pleasurable attempt at describing it.—A CITY MAN.

### STRAWBERRY CULTURE.

YOUR correspondent at pages 182 and 242 has made some observations, to which I think so many exceptions may be taken that I am induced to pen a few lines, in the hope that those of greater experience may give the readers of "our Journal" their opinion for the benefit of all interested.

We have certainly had an exceptional year for quantity, though the rain has very much injured the quality of the fruit; but the produce of 67 lbs. on sixty plants planted last September, grown in very light soil after Potatoes (a crop not heavily manured in general), without any manure added at the time of planting, and twice transplanted, is beyond my comprehension. My objections to the mode of cultivation recommended are, twice transplanting; deferring the final planting till September; planting without manure; planting after Potatoes; taking the runners from each alternate row; and continuing the plantation after a heavy crop.

I think the young plants should be removed to their fruiting quarters and allowed to make all possible growth there, for which purpose they should be moved as soon as they have made sufficient roots for their support; that the ground should be heavily manured and consolidated by roller or rammer before planting, and then mulched to enable the plant to become strong before the frost sets in; that Potato ground is objectionable from the annoyance caused by young Potatoes sending their shoots up; that it would be more in accordance with horticultural practice to take the runners from every alternate plant (which are proposed to be cut out) than from every alternate row, every other plant of which must be weakened by taking four to six runners from it; and finally, that when a plant has brought to perfection 1 lb. of fruit—if such can be produced on one-year-old plants—it would be more economical to destroy than continue the cultivation.

I will very shortly state my mode of cultivation, which has been very successful on plants two years old. I grow large crops and then destroy them. If they fail to bear a crop the second year I keep them the third year, but never beyond. I grow them where Cabbages have been, and for which I manure heavily. I do not cut spring Cabbages, but pull them up, and at the same time water the hole with ammonia water, which brings forth the slugs. This leaves my ground free by the time the runners are ready to plant out, and I prepare the ground for them by taking out as much as the spade lifts from a trench 1 foot wide and wheeling it away, bringing back a compost of three-fourths heavy loam, one-quarter manure, consisting of pig and cow manure in equal proportions. This I have rolled or rammed down 1 foot wide and 3 or 4 inches above the level of the soil. These flattened ridges are 2 feet from centre to centre, and made as solid as possible; I then have holes made with the dibble 2 feet apart and 5 or 6 inches deep and filled with liquid manure. My runners are rooted in the same compost rammed into gutter tiles 4 inches wide and a foot long in which two or three are rooted, and when sufficiently strong are removed to their fruiting quarters. A puddle is made so that the young plant when pressed down stands just clear of the ground, a Seakale pot is put over each (without the cover), for a few days and the ground mulched till the middle of October, when it is removed and dug-in to the quarters for Cabbages. Just before November I cover all the ground with dry leaves with something thrown on to keep them from blowing away. This is removed in the spring, the

ground well watered with lime water, dressed with soot, and mulched at once with long manure, which the rains render clean before the harvest is reaped, and I have never failed to secure one.—AN OLD SUBSCRIBER.

### CHAPTERS ON INSECTS FOR GARDENERS.

No. 8.

I MUST own that I have sometimes felt a malicious satisfaction in acquainting persons who have twitted me with a liking for insects, and who had a partiality for crabs, lobsters, or shrimps, that they were given to devouring creatures which were once actually classed with insects, and which are beyond all doubt near kin to spiders and woodlice. We must clear our ground as we go, and therefore I at once put aside all the regiments of spiders, mites, woodlice, &c. Numerous and oftentimes annoying as they are in gardens, they are not properly insects, and therefore I, as an entomologist, am not bound to give account of their proceedings. So far it is well that I am not answerable for their manœuvres, since on the whole they are more injurious than beneficial. The Arachnids, now forming a separate class in science, of course come nearer to insects than our aquatic friends that are so freely devoured and all their brotherhood, some of microscopic smallness. But the legs are eight in the spiders, the head and thorax are continuous, and there are successive moults, but no true metamorphosis exists. These characters, without going further, are to me conclusive as to the separation now agreed upon by most naturalists, though one whose name must certainly be ranked high in our annals upholds the theory that the class Insecta should comprehend all these eccentric individuals. About the large tribe of the Acari, I merely venture the remark here that we are only just beginning to discover the influence they exert throughout nature, and especially amongst vegetation. And to me one of the most peculiar circumstances in the history of these mites or ticks is the fact that many species can live indifferently on animal or vegetable substances. Often butterflies and moths are taken at large attached to the wings or thorax of which are a number of these small fry, sometimes operating so successfully as to exhaust the insect and render it incapable of flight. It would be going too far to assert that the Acari have in all cases been obtained from flowers that the insects have been visiting, yet it is certainly the fact that they do transfer themselves from flower to insect, and, perhaps, *vice versa*. I have never heard it suggested that these mites when young prefer vegetable food and when older prefer an animal diet, but the hypothesis may be started. The evidence at present is rather against it. For example, I have repeatedly found that one species of tick which infests cage birds is conveyed to them, sometimes, with the seeds supplied as food. Amongst these seeds, however, I have found Acari, both full grown and very small. The injury Acari or mites do to flowers is of no great consequence ordinarily, but some species "ply their vocation" in a manner very objectionable to the horticulturist. They visit his seed-drawers and parcels, and owing to their rapid multiplication, and the difficulty there is of detecting them amongst some seeds, they may occasion much disappointment as well as money loss.

To proceed: I must here also caution-off the Myriapoda, they have no claim upon my attention. A series of developments they may pass through in the majority of species, but there is nothing approximating to the transformations of insects. The head is distinct, not so the thorax and abdomen as in true insects. With the Myriapoda the two form one continuous body, remarkable also for the number of legs attached to it, and thereby again separated from the class Insecta. It is rather ludicrous to read in one author that these creatures are to be divided into two sections, the "Hundred-legs" and the "Thousand-legs," and he immediately proceeds to show that both names are incorrect. We find neither the hundred, nor the thousand legs, the difference being mainly this, that in the first each segment has one pair of legs, and in the second two. The Scolopendra electrica, or electric centipede of our gardens, is a familiar example of the moderately-legged group, a creature decidedly of ferocious habit, and feeding by choice on small insects and other living things. Another resident in most gardens represents the Thousand-legs—viz., *Julus terrestris*, popularly called Maggy-many-feet, at least this is the name applied to it in some English counties. It has not a thousand legs, yet several hundreds might be reckoned up; and though it occasionally devours the rootlets of plants, this Myriapod subsists largely on decaying vegetable sub-

stances, and is therefore hardly to be classed with our unquestionable foes.

Leaving these I must make passing mention of the mysterious tribes of minute creatures classed under the title of Thysanuridae, which have also received the English appellation of the "Spring-tails;" incorrect as it appears, all these are not furnished with tails, and therefore they cannot spring with them or wag them. By the way, friendly reader, do not confuse these with the Thysanoptera, not so unlike in size, but true insects, though of peculiar habit, about which I shall have more to say. An unfortunate race of beings these; no one wishes to own them. Entomologists stand at the door of their class and cry "No admittance," for the Thysanuridae, though six-legged, have differences of structure which separate them from the insects, though a few eccentric individuals have considered that these diminutive creatures had a likeness to the larvae of Neuroptera, only they never get beyond larvahood. In vain have others tried to connect them with the Acari or the Myriapoda, and they remain a square group that we cannot fit into any of our round holes; somewhere between the mites and the insects proper may be probably their position at last. "If they're not insects they did ought to be," remarked a gardener to whom some were shown, not meaning by that a compliment, as "insect" with him was synonymous with whatever was unpleasant and troublesome. Sundry species have been called "Scale Insects"—an ill-chosen name in both its halves, since there are other scale insects, yet it is so far correct as to the external aspect of the Thysanuridae, since they are scaly. As an illustration I do not know that I can select a better one than *Lepisma saccharina*, a creature visible to the unassisted eye, and not a stranger to careful housekeepers and cooks, who detect its sneaking ways. To this the vernacular name of "Fish Scale" has been given from its slippery body, and though specimens of it generally reside in cupboards and odd corners in the basements of our houses, the Fish-scale also visits upper rooms, and in libraries, especially where the walls are damp, it makes sad havoc amongst books and manuscripts. From drawers, too, containing loose papers thousands of these little pests have been shaken out. Some Thysanuridae are terrestrial in habit, living in loose earth, or else spending their brief existence in running over the surface of the ground. Mr. McIntire, in his admirable sketch of the history of the group, notes with regard to the genus *Sminthurus* as follows:—"I once saw when a friend was potting-out some Geraniums that the empty flower-pots were made a promenade of by thousands of a tiny black species, which looked as if some chimney-pot in the neighbourhood had favoured the locality with an abundant shower of smuts. They were so nimble when I approached to capture them that I only got a few." These are devoid of scales, with globular bodies, and a forked springer. A species of *Degeria* is also common about pots in greenhouses, and other species frequent moss or get under the bark of trees; it is very likely, too, should you see a microscopist turning over bricks that he is in the hunt for some of the Thysanuridae. According to one modern philosopher the individuals belonging to the genus *Podura* were principally designed to furnish food for spiders.

Coming now to the consideration of the various orders of insects, it should be noted in the first place that there is a great difference in the number these contain. Some of them, the Coleopterous order for instance, present us with a long muster-roll, like a modern regiment in the German army, while the meagre list in one or two rather resembles the turnout of some of the attenuated regiments in the petty German States of former times. Working upwards we of course commence with the order Aptera, and find in Britain at least that we have nothing to place in it but the group of fleas, creatures, it might be argued, of very little importance to the gardener. Stop a moment, I am not quite sure of that. It might be also said that, since few gardeners escape the attacks of fleas (unless they are endowed with the peculiar cuticles the fleas won't touch, for some such cuticles there are), they are thus more fully kept on the alert and watchful for the parasitic enemies which affect the plants under their guardianship. "A fellow-feeling makes us wondrous kind" perhaps, and, if a certain poet is to be believed, a shrub covered with galls and blotches produced by insects is as much to be pitied as a man who has been repeatedly bitten by the saltatory insect. And this is not all. It is possible that the larvae of the flea not unusually feed on decaying animal substances, such as wool, feathers, or flesh, therefore aiding in the disintegration and decomposition of substances valuable as fertilisers. That is my belief, and I

observe that even those who propound the theory that the parent flea disgorges a provision of dried blood for the young larvae, also admit that they are not entirely nurtured thus. One author says that the mother returns to feed them, which I much doubt, and I think that anyone acquainted with the irregular wanderings of a flea will not give any of these insects credit for being able to return to the same spot they have quitted, unless it be by accident. Cases are on record where fleas have appeared in hosts in untenanted outhouses, but I do not suppose that this is to be taken as affording any proof that, like an odorous and even more detested insect, the larvae can thrive upon old wood.

The flea, so some assert, is only a degraded fly that has lost its wings and taken to leaping; and, as other speculators suggest—why I cannot tell—that most fleas are of a melancholic disposition, it is perhaps because they are apt to repine over their seeming descent in the scale of life, so different from what Darwinian views might have encouraged them to hope, were fleas as "learned" as they have been shown to be "industrious."

The head of the flea is remarkable for the shortness of the antennae and the prominence and size of the eyes. From the virulent inflammation which occasionally attends a flea-bite one would almost imagine the insect had the power of emitting a poisonous fluid, but as yet our microscopists have detected no traces of poison glands, though within the rostrum there is a formidable array of lancets, which can cut or saw according to circumstances. The body of this insect is flattened and horny, hence the difficulty there is in crushing it, and the leaping is aided by the muscles of the body, not depending solely on the strong array of muscles in the hind pair of legs, which are also spiny. The pale footless larvae of the flea resemble that of the gnat, and when full-fed each spins a separate silken cocoon.

An eastern tradition tells us that Noah on his emergence from the ark produced fleas and all the other creatures that prey on human blood by burning a serpent. Were this so, it is evident that Adam, our great horticultural predecessor, had a happy immunity from such parasitic foes.—J. R. S. C.

#### NOTES AND GLEANINGS.

WE have recently seen growing in the garden of Mr. Ormson, the eminent horticultural builder, at his residence The Bush, Walton-on-Thames, some remarkable fruits of the BARRINGTON PRACH. The Peaches have now been gathered, and many of them weighed 9 ozs. each, some 9½ ozs., and one weighed 11 ozs. These splendid fruits were produced by an old tree on a wall only 6 feet in height. The soil is light and sandy, and the more credit therefore attaches to their production. The fruit crop generally in this garden is very large. Mr. Ormson has erected a fine vinery, and the Vines are of great promise; the bunches of Madresfield Court, but for careless handling in their early stages, would have been worthy of a place at the best exhibitions. The management of this garden is now in the hands of a skilful man, and good results may be anticipated.

THE Rev. George Meares Drought, writing from Ireland, says:—"For three years I have lived in a town, and during that time my sitting-room has been FREE FROM FLIES—three or four only walking about my breakfast-table, while all my neighbours' rooms were crowded. I often congratulated myself on my escape, but never knew the reason of it until two days ago. I then had occasion to move my things to another house, I remaining on for two days longer. Among other things moved were two boxes of Geraniums and Calceolarias, which always stood in my windows, the windows being always open to the full extent top and bottom. The boxes were not gone half an hour before my room was as full of flies as all those around me, and I am now writing at my breakfast-table with twelve dead bodies in the slop-basin, and everything on the table crowding with fresh arrivals. This, to me, is a new discovery, and perhaps it may serve to encourage others in that which is always a source of pleasure, and now proves also to be a source of comfort—window gardening."—(Times.)

WE have received from Mr. Batters, The Gardens, Chilworth Manor, Romsey, Hants, SPECIMENS OF SHRUBS, showing how they "grow, flower, and fruit on a dry and gravelly soil 200 feet above the sea level." The specimens sent of Laurels, Hollies, Bay, Berberis, &c., are remarkable examples of health and fruitfulness. The berries of the common Laurel



are three-quarters of an inch in diameter, and are, Mr. Batters informs us, used by the neighbouring villagers for making fruit pies. They are fleshy, sweet, with an agreeable sub-acid flavour, and are certainly superior to unripe Plums when used for culinary purposes.

On the 17th, according to the ancient custom, the Lord Mayor and the Lady Mayoress received at the Mansion House the Master and Wardens of the FRUITERS' COMPANY, who presented to them a splendid assortment of choice fruit, including Pine Apples, Melons, Pears, Apples, Peaches, Green Gages, and other Plums. The gift was laid out with much taste in the saloon. Some cordial expressions of goodwill were interchanged between the Company and the Lord Mayor, and the interview terminated, as usual, with an invitation to the Court of Assistants to dine at the Mansion House. In olden times the annual gift of the Company to the chief magistrate consisted of twelve bushels of Apples "of various kinds and of the finest description that can be procured." The purchase used to be made in state at Farringdon Market, and the fruit was thence carried in baskets covered with white napkins to the Mansion House. The records add that the Lady Mayoress handed the fruit to her housekeeper, and placed in each of the porters' baskets a bottle of wine. The men were then regaled with a dinner in the Lord Mayor's kitchen, and having satisfied themselves retired, taking with them the fragments for their evening's supper. This old ceremony has not been observed for many years. There were eighty-two Livery Companies, but three are extinct, and among them "The Gardeners' Company." James I., in the year 1605, incorporated this fraternity as the Master, Wardens, and commonalty of the mystery of Fruiterers, and their arms, granted soon after, has the tree of knowledge entwined by a serpent, with man and woman on each side thereof. Their motto is "*Deus dat incrementum*," God giveth the increase. The Fruiterers are governed by a Master, two Wardens, a Court of Assistants, and a Livery. The Company have no hall.

## NOTES ON VILLA AND SUBURBAN GARDENING.

### STREET GARDENS.

THROUGH the late fine weather these little enclosures, where care and attention are paid to them, now present their proper cheerful and ornamental aspect; and in passing along a street one feels it a matter for regret that the line of beauty so conspicuous should be broken here and there by an unsightly and neglected plot; but if anything can be gleaned from the wonderful progress made of late years in town gardening we can safely leave this to be remedied in time. It is not too much to say that there is as much or more variety of design in the laying-out of the little spaces than in many other parts of decorative gardening. There is scarcely two alike, and the great variety of plants grown in them testifies fully the class of plants the owner has a fondness for. I admire this, but I think it would be better if many were not to dwell upon summer bedding plants alone, because there is a barrenness for the greater portion of the year, and which could be easily obviated with hardy and inexpensive plants.

The choice of plants is great even for these limited areas, but as these gardens vary in size considerably, plants must be selected accordingly. I like to see a certain portion filled up with suitable-habited evergreen trees and shrubs, but this must be done cautiously, and overcrowding must be avoided. We sometimes see a Wellingtonia or a Cedrus deodara planted in a garden of only a few feet square, and close to the windows; but these, being large-growing trees, are quite out of place here, but might be admitted where there is a fair scope for them, say of several rods of ground. Neither should other things be planted too close to them. Generally speaking, plants of a compact habit and slow growth should be chosen, such as the green and golden Hollies, Arbor-Vitæs, Phillyreas, Rhododendrons, Thuja aurea, Aucubas, Tree Box, Swiss Junipers, and Irish Yews. These can always be kept within bounds, and may be regarded as always agreeable to look at, and are permanent plants. Space should be allowed for a few other subjects in the flowering way besides a few summer bedding and climbing plants. These are Roses, Hydrangeas, Solomon's Seal, Gladiolus, hardy Lilies, Lily of the Valley, Polyanthus, Primroses, Violets, Hepaticas, and many other hardy permanent plants that would thrive in these enclosures. There are also hardy bulbs, which may be planted in clumps of five or seven to stand permanently. The Winter Aconite, one of the hardiest as well as the earliest in throwing up its yellow flowers, contrasts well with a few patches of Snowdrops, and the Scilla siberica, a blue flower of great richness. Then there is the Grape Hyacinth, of which both the blue and the white ought to be planted, as they contrast well with each other; and the common Daffodil, too, ought to have a place.

All the above to flower next year should be planted this autumn, and they will accommodate themselves to most ordinary garden soil. Of course the ordinary selections of Crocuses, Tulips, Narcissus, and the Hyacinth would materially alter the appearance of the little garden. So far it will be seen that I advocate the mixed system of planting, which I consider looks as well as any in such places, and there is generally some flower or other to be seen during most part of the year. But there is no reason why there should not be a miniature fernery just to accommodate a few of the common sorts found in hedges, or a little piece of rockery here and there, just as taste dictates.

When so many features are needed in such small gardens the attention required is greater, but then if rightly managed the enjoyment is greater also; but to show all off to advantage not a plant should be allowed to over-run its allotted space, and each should be staked to its position in the most natural manner. All weeds and dead foliage should be kept picked off, and everything, even the palings that surround the garden, should be kept scrupulously clean, and then the occupants of the house may sit at their windows and enjoy a homely aspect; and the freshness of the flowers and plants after watering, together with their perfume, creates a treat to be thoroughly enjoyed by all.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### FRUIT GARDEN.

PEARS on the walls have a splendid opportunity to ripen, and if the fruit is not of good quality this year it will be but little use trying the trees any longer. It may be matter of astonishment to many fruit growers to hear that such fine varieties as Knight's Monarch, British Queen, and Glou Morceau are very indifferent from a wall facing west. The weather is so favourable this year that the fruit may ripen well, but light sandy soil on gravel is the worst of all for Pear trees. The hot weather is causing all that has been gathered to ripen rapidly. Williams' Bon Chrétien has been used, and we are now using Fondante d'Automne and Benrê d'Amanlis. The first named is a very richly-flavoured fruit from pyramid trees; the latter is a free-bearing variety, but it is not rich or juicy, and speedily decays at the core; it is a free-bearing sort from a pyramid. It may be well to draw attention to Triomphe de Jodoigne; this is not generally considered a good Pear, nor is it of first-quality flavour, but the tree is a robust grower and a certain bearer. We have just gathered the fruit; it will ripen about the end of October. Still another, which is very little known—viz., Edmund's, an American variety; it is grown as a double cordon, and as such is a very free-bearing sort. Until this year it has been worthless as regards flavour, now the fruit is ripe and of very fair flavour; it is gritty at the core, and cannot be recommended while there are such sorts as Louise Bonne of Jersey ripening at this season.

We are preparing ground to plant-out a few fruit trees this autumn. The best time to plant is in November, but the ground ought to lie for about two months to settle, and besides soil that is freshly turned up is not in good condition to be planted upon immediately. We trench deeply, removing if necessary some of the stony soil from the bottom of the trench, and adding clay loam in its place. We tried chalk in the bottom of the trenches on one occasion, but were not favourably impressed with the result of the trial. It may be necessary to add manure; if so, it ought to be well decomposed and applied sparingly.

It is the fashion with some to take the Strawberry runners early in August and prick them into beds closely together, and to plant them out when well established; they will be ready at this season, and ought to be put out at once. It is not possible that such plants can carry a crop of fruit next year, but they must be kept free from weeds, and the runners must be removed, so that a season is lost. Our plants put out early in August are now very large and in the best possible health; the runners are removed frequently, and the ground hoed as often as it is required. Red spider has been troublesome, but syringing the plants with soot water is the means of destroying the spider, and the leaves become of a rich healthy green.

### VINES.

Nothing can be done as yet in the early houses, but before writing of them again in the "Doings" the Vines will probably have been pruned. We admit air night and day, so that the house may be kept as cool as possible. Most of the old leaves have fallen, and the buds continue to start into growth. These growths are stopped as soon as they are formed, as it is not to the advantage of next year's crop to encourage root action now. When the Vines are clothed with foliage we would not be afraid to keep the house warm, for as long as the leaves are attached to the wood the buds continue to develop the incipient growth for next season. Do not allow red spider to find a home on the Vines. Even if no trace of this scourge is perceived it is quite as well to syringe once a week at least as a preventive.

In the late houses all fruit is ripe, and the only care necessary

now is to prevent any decay from spreading on the bunches, nor should any dust be permitted to lodge upon the berries. This cannot be avoided if the vineries are situated near a public highway; the dust that arises from the traffic penetrates to the Grapes even if gauze is placed over the ventilators. In the matter of mouldy berries from now until the leaves fall we find the Grapes require daily attention. A pair of scissors is kept in the vinery, and if mould is noticed the berry is removed before the decay has time to spread. If it is necessary to apply artificial heat to the vinery, it is best to do it in the daytime. Let the pipes be warmed sufficiently by 2 or 3 p.m., and then stop the flow of the water if the house is connected with others; if it is not, the fire ought to be lighted in the morning and allowed to die out by midday. When there are no plants in the house the difficulty is easily overcome, but in many places there is no choice in the matter. When plants require water it ought to be applied in the morning, so that the damp may evaporate as much as possible during the time the ventilators are open to their fullest extent.

Many persons will be preparing to plant their vineries, not only for late but also for early fruiting. Lady Downes' is still the best variety for very late purposes; it is also a Grape that is esteemed by some at a time when Alicante, Mrs. Pince's Black Muscat, or Gros Guillaume can be had in good condition. If we were to plant a house for very late Grapes, say for use from January to May, it would be with Mrs. Pince, Alicante, and Lady Downes; half of it would be occupied with the last-named and half with the other two, planting most of Alicante as being the most certain of the two. If no Muscats were grown in any other vinery it would be very desirable to find a place for Muscat of Alexandria. The same treatment is suitable for all of them.

#### CUCUMBER AND MELON HOUSES.

Our plants for the winter Cucumbers were planted some time ago, and are now in bearing; if they had to be cropped heavily they would not bear well at midwinter, but by very light cropping at this season Cucumber plants will continue to bear all through the winter. Where a good supply has to be maintained it is better to allow the plants to become exhausted by Christmas, and to have a second set to begin to bear from that time onwards; they ought to be planted out by the middle of October. It is well to grow the plants with plenty of air when weather permits, so that a healthy growth may be made to form a good foundation to start upon for future crops; above all, see that the plants are kept clean and free from all insect pests. This has been repeatedly urged in these papers as advice of the first importance; for if red spider or thrips continue to suck the juices of the leaves at a time when all the strength of the plant is required to produce fruit, the result may be predicted.

There is one thing which may seem of minor importance, but it is not so, and that is the position of the soil or compost in which the Cucumbers are planted. This ought always to be raised high enough to allow the sun to act upon it, for if it is placed down in a pit where the sun's rays are intercepted by the front wall, the plants cannot possibly do so well. It is the minor details that are the means of securing success in this as in greater things. The intelligent cultivator will take note of the circumstances under which he is placed, and will act accordingly; but this ought never to be lost sight of—that sun and air are the grand agents that will, if utilised on the best principles, contribute more than all the rest to the cultivator's success. The weather still continues most favourable for Melons, and the autumn crops have been better than those obtained at midsummer, and very little artificial heat is required to ripen them.

#### GREENHOUSE AND CONSERVATORY.

It is now a busy time with Chrysanthemum growers. The ardent cultivator is constantly amongst his plants, tying and training the specimens, and "setting" the blooms on the plants intended to produce cut flowers. This last operation requires some knowledge of the different varieties, as some take longer to open than others, and if they are all "set" at one time they will not be all ready as they ought to be on the exhibition day. All the side growths that start under the flower-buds must be removed as soon as they can be taken hold of with the finger and thumb. When the buds are set manure water is applied at every alternate watering. This also must be a matter of experience, for some of the sorts take as much manure water as the roots will appropriate without injury, while others may require but little or none at all. There are flowers that will be coarse under any treatment, but manure water will be the means of producing this objectionable feature in the flowers.

True or perpetual-flowering Carnations are now swelling their buds rapidly, and the first of them will be in flower in October, a succession of flowers are then obtained from two or three dozens of plants for the next twelve months. Last year's plants are still flowering, at least a few of them, as the greater portion have been removed from the house for want of space. Stage Pelargoniums are now ready for repotting; the old soil ought to be shaken away from the roots and the plants be repotted in much smaller pots. Azaleas and other New Holland plants are left out of doors while the weather is favourable; if a wet

period should set in all of them will be better indoors.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

ALEXANDRA PALACE (Potatoes).—September 29th and 30th. Mr. P. McKinlay, 23, Upper Thames Street, London, Hon. Sec.  
JERSEY.—Autumn October 18th, Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

### TRADE CATALOGUES RECEIVED.

James Dickson, Newton Nurseries, Chester.—*Catalogue of Dutch Flower Roots, Roses, and Garden Requisites.*  
The New Plant and Bulb Company, Lion Walk, Colchester.—*List of Japanese Lilies, Orchids, &c.*  
Smith & Simons, 36, Howard Street, Glasgow.—*Catalogue of Trees, Shrubs, and Bulbs.*

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

REINHOLD CLAUDE DE BAYAT PLUM (G. S.).—The Plum enclosed was quite sound. We do not grow this variety in the orchard house, but out of doors it is so uncertain that we thought of discarding it. Probably a maggot inside is the cause of the defect; we have often had the fruit injured by them when no trace of its entrance could be observed outside. We cannot account for it in any other way.

LARGE STRAWBERRIES.—"C.B.G." wishes "AN EXPERIENCED GARDENER" would tell how he cultivated the plants which bore the large Oscars mentioned in this Journal, August 12th.

PEARS RUPTED AND SMALL (L. J. K.).—The disease and the inferior size are evidence that the soil is very much too poor. It should be liberally manured at once, and the surface kept mulched during the spring and summer.

MESSEMBRYANTHEMUM CORDIFOLIUM VARIEGATUM FROM SEED (Y. W. B.).—It may be raised from seed, and the best time to sow it is in July, so as to have the plants well established before winter, they either being pricked off in pans or potted off singly, keeping rather dry during the winter. Sow in gentle heat in February, and grow on in gentle heat, pricking off the seedlings when large enough to handle, hardening well off before planting out.

VACCINIUM LATIFOLIUM (Idem).—We do not know that it has any "use," only an ornamental evergreen shrub requiring to be grown in peat soil.

PALM AND DRACENA SEED SOWING (A Young Gardener).—Sow them all in strong heat in February, and in a compost of two parts fibrous peat and one part turfy loam, with a free admixture of silver sand, covering each the diameter of the seeds and keep moist. A bottom heat of 90° is not too much, and top heat of 75° to 90°.

RAISING VARIEGATED HOLLIES FROM SEED (Leybor).—The seed will germinate, and a majority of the seedlings will be green-leaved, but these may often do throw off variegated parts. These may be propagated by grafting, or the green parts cut away. The seeds will not vegetate until the second year. Both green and variegated Hollies may be raised from cuttings—the ripened shoots of the current year put in now in sandy soil surfaced with an inch of sand under hand-lights on a north border. Hollies have the male and female organs in the individual flowers, but some trees do not produce berries, they being for the most part very vigorous.

HYACINTH AND TULIP SEED SOWING (F. W. H.).—Sow both now in light sandy soil in a sheltered situation, covering about a quarter of an inch deep, and afford protection from frost in severe weather, or defer sowing until March, and the seedlings will appear about June, and are not to be taken up until the July following twelvemonth, planting them again in October.

MARSHAL NIEL WORKING ON HYBRID PERPETUAL (Idem).—It would succeed admirably, the Perpetual upon the Briar being of free growth.

DISEASED POTATOES, ARE THEY INFECTIOUS (P. M.).—If the season be favourable, Potatoes planted in ground where diseased tubers have been allowed to rot will not be affected. We have known the experiment purposely tried. At the same time it is not an advisable practice to grow Potatoes on the same plot the following year.

FUNGUS ON PEAR LEAVES (J. N.).—The brown projecting patches beneath the leaves are a fungus, *Rosella cancellata*. Gather every affected leaf and burn it; do not let any remain on the ground—burn all. It is very destructive.

LADY DOWNES' SEEDLING GRAPE (J. A.).—This variety of Grape will succeed in a house where it can have a night temperature of 65° when the fruit is setting. This it can have in a greenhouse about the middle of May, after that no artificial heat is required until the time of ripening—about the end of August. The greenhouse ought to be shut-up at six o'clock during the summer months. We do not recommend Lady Downes' to be planted in a greenhouse, but you asked if it could be grown. We may as well say that by far the best Grape for greenhouse culture is Black Hamburg.

STRAWBERRIES FOR LONDON MARKETS (R. W.).—Keene's Seedling for early produce, and Dr. Hogg for succession.

**PRACHES FOR SOUTH WALL (R. H. A.).**—The following are in the order of their ripening:—Early Beatrix, Early Rivers, Grosse Mignonne, Noblesse, Ballegarde, Osprey, and Lord Palmerston. The Nectarine may be Balgowan.

**BEES EATING FRUIT (J. F.).**—There is no mode of destroying the bees, as they will not go into bottles as wasps will. Bees do not attack fruit except in very dry seasons when flowers are deficient in secretions. The most efficient protection of the fruit would be to fasten gauze over it.

**A DOZEN SUPERIOR GARDEN ROSES (J. Kelly).**—The following are the best out of some 850 varieties which we have proved within the past seven years. All are perpetuals except one, and that one a Tea-scented—viz., Gloire de Dijon, the best "one" Rose for the million, and the best "one" red Rose is Alfred Colomb. Baroness Rothschild, Charles Lefebvre, Comtesse d'Oxford, Dupuy-Jamain, Edward Morren, John Hopper, La France, Madame Victor Verdier, Semestre Valisee, and Capitaine Christy. You will want whites, and we name two, Boule de Neige and Perle des Blanchés. Yellows are Bêve d'Or and Perle de Lyon, both Teas. Bessie Johnson, Hybrid Perpetual, is, perhaps, the sweetest of all Roses, always excepting the Tea-scented "Odorata," bluish, the finest scented of all. We do not, however, advise it for your purpose, but all the others are good growers, and are suitable alike for standards or dwarfs.

**ROOT-PRUNING FRUIT TREES (F. J.).**—It should not be done until the leaves are beginning to fall, certainly not before the 1st of next month. Early in November is quite early enough.

**TAKING-UP MASTER CHRISTINE GERANIUM (Idem).**—They being plunged in the pots will be lifted more certainly than those planted out, and being done before frost, they, kept over the winter, will flower more freely than young plants. The roots will have extended beyond the pots and over the rims. They should be turned out of the pots and have most, if not all, the old soil removed, the long straggling roots shortened, and the plants returned to the same size of pot, which should be cleaned. Any straggling growths to be cut back, and all the large leaves removed. They should have but little water until established, taking care to pot them into moderately moist soil, neither wet nor dry, but a mean of the two.

**REMOVING THE HAULM FROM POTATOES (S. E.).**—We have submitted your letter to the author you quote. He replies that there is no practical danger of the tubers growing again in the ground. Only once has he found that to be the case—viz., in the hot season of 1868, and the wet and warm autumn following, and even then the growth of the current season's tubers was not general, and was confined to the earliest kinds. Dalmahoy's the same season remained perfectly dormant. *Cyclamen repandum* is in colour reddish lilac. Your white variety, if it flowers in the autumn, is *C. albidum*; if in the spring, *C. albidum*.

**FUNGUS (X. X. X.).**—It is not clear what species you have in view under *Boletus aureus*. Schaffer's *B. aureus* is very doubtful. Perhaps you have *B. granulatus* in view, if so, Pearson and Withering describe it as edible, but we have not tried it, and we know one of its allies to be dangerous. Or your plant may be *B. variegatus*; if so, its qualities are doubtful. Both the above plants belong to Schaffer's old *B. aureus*. You should work with the volumes of Frise or Berkeley.

**FRUIT NAMING.**—Many times have we given notice that we cannot name more than six specimens at a time from any applicant, yet multitudes send us far more than that number. Our rule must be like the laws of the Medes and Persians, "which altereth not." It is no easy task to identify any fruit now that there are thousands of varieties.

**NAMES OF FRUITS (H. G. M.).**—1, Passe Colmar; 2, Fondante d'Antonne; 4, Beurré d'Arenberg. (Mrs. Henderson).—It was quite decayed when it arrived. (J. W.).—Winter Hawthorn. (F. J. K.).—5, Beurré Sterckmans; 6, Comte de Flandres; 7, Williams' Bon Christien. (Geo. F. Barrell).—1, Court-Pendu-Plat; 2, Northern Greening; 3, Bedfordshire Foundling; 4, Maréchal de Cour; 5, Beurré d'Arenberg; 6, Comte de Flandre. (Somerset).—Imperiale de Milan. (T. Nial).—1, Washington; 2, Victoria; 3, quite rotten; 4, Jefferson. (G. J. W.).—24, Cockle's Pippin; 21, Braddick's Nonpareil; 25, Beauré Nonpareil; 27, Christie's Pippin; 1, Louise Bonne of Jersey. (G. H. Fitzherbert).—Pears: 1, Beurré Diel; 2, Desirée Cornélius; 4, Aston Town. Apples: 3, Yorkshire Greening; 8, Nelson Codlin; Selwood's Reineette; 6, Lewis's Incomparable. (Comar).—1, Loan's Pearmain; 8, Golden Reineette; 4, Vicar of Winkfield Pear. (Donnaught Subscriber).—1, Oakin; 2, Reineette du Canada. Pears: 1, Beurré Clairgean; 2, Williams' Bon Christien; 8, Brown Beurré; 4, Urbanista. Plum: Prince Englebert.

**NAMES OF PLANTS (J. P. P.).**—The specimens were dried-up, and some only leaves.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### CUPS AND ENTRY FEES.

WHEN writing the other day of Mr. J. K. Fowler's establishment of poultry at Aylesbury we alluded to his cups and plate—trophies of past poultry shows, and the differences between them and the cups sent out in the present day. As we said then, it really seems in these times that so long as an article can be called a cup it does not matter what it is like. But really this should not be the case. It is all very well to win one or two such articles, but after that it comes rather slow. Once the glory and honour of winning the maiden cups are over, most fanciers like either to have something useful or the value in cash. We really sometimes think that the cup system of the present day is going too far. When we see a £2 2s. cup given as a first prize in every class throughout a schedule we begin to think that we may indeed say, "Somewhat too much of this."

A few years ago a specimen that had won a cup was a marked bird. Its title, "cup winner," showed that it was above the ordinary run of prize birds, and that it was a specimen to be proud of; but now everyone has cup specimens, for we see advertised cup pens of poultry for a few shillings, and eggs from cup birds for 8d. or 4d. each. This almost makes us weary of cup-winning, and desirous rather of good money prizes and a champion cup or so every now and then as a *bonne bouche*.

We fear there is a tendency, too, for committees to value the cups of the present day at more than they are worth to make them flashy and acceptive baits—in a word, to catch exhibitors with them. We are alluding here, of course, to those exhibitions who actually give cups and not the value in money; but we would not for a minute wish to be understood to allude to all exhibitions—far from it, as we have had ourselves splendid value in plate; but we say we think there is a tendency to this over-valuing of plate. We know of two cases which came under our own eyes, and have heard of very many more. In the first case the cup was valued at £5 5s., and was won in the very north of England, where it was seen by an exhibitor and noted as a fair five-guineas' worth. When, however, it arrived at the winner's place of residence the same cup which was on exhibition at the show never came, but a petty thing that a child could easily have bent into any shape, and which was valued by a silversmith at 23s. by weight.

The other case was a champion cup, where the article in question was valued by a silversmith at 60s. by weight, and it was stated to be in the schedule a 210s. article. These things make beautiful puffs in an advertisement, but are hardly satisfactory to the winners; at least so we think. Those shows who give cups but allow the winners to take the value in cash we can say nothing about, as the arrangement is all fair and above board; but why in that case they should not be called first prizes we cannot understand, for the winner is in those cases able to put the money against the corn bill, or buy any other article as is preferred. We confess we would like to see the value of a cup-winning specimen go back to its old rate, and we can never see this while so many paltry little cups are being given and being won so easily everywhere. Local cups, too, we do not approve of, for in many cases the winners are wretched specimens, winning in poor competition, and yet the birds go forth to the world in a silver cloak, and sometimes are the means of great disappointment to our less experienced poultry friends.

In a schedule like that sent out by the Alexandra Palace we think the cup arrangement very good for the most part, as to pick out the winners for a champion cup among the pens we shall doubtless see there would be a simple impossibility, and so to give at a show of that kind a good cup or its equivalent money value for the various classes of a breed is well and good; and besides, the fact of a Palace winner alone tells the merit of a bird, and carries its value on its back; but it is at the little shows—at the small mixed-up-classes shows, that we want to see the cup system altered.

At the same time we think the entrance fees should to some extent be charged according to the value of the cups and prizes offered. It certainly is not fair for the same fee to be charged in a class where, say, only £2 can be won, as in a class where double or treble the value is offered. Now, the Polish people at the Palace pay 7s. 6d. for the chance of winning a £4 4s. cup where the first prize is £2, while the Brahma people pay only the same money for the certainty of £10 10s. and £7 7s. prizes. Of course the chance of winning is much more remote in the latter cases, and there will be a much greater number of entries, but still the arrangement to us hardly seems fair. We confess of all schedules we think Oxford stands alone for the even way it distributes its money, and the low entry fees it charges—viz., only 5s. for 60s. first prizes. We have noticed of late that two or three shows have made a different tariff of entrance fees for the different sums expended in prize money, and have noticed it with pleasure; we hope others will copy their example, for we really think that high entrance fees with poor prizes keep down the number of entries in many classes at shows to an immense extent. We sometimes wonder if it would be possible to have one recognised scale of charges for entrance fees. It would simplify matters very much, and put shows on a much more even basis. Were we to draw up such a scale we should say they should be something in this proportion: 8s. for a £1 first prize, and then 1s. forever 10s. afterwards, which would make a 7s. entry fee for a £8 first prize. This we should call a fair charge, and then if there were one or two champion cups to be competed for another 6d. per pen could be added. Were such a scale adopted—and we think all would consider it reasonable—we believe that much greater satisfaction would be given, and the exhibitions would be more even in quality and quantity than we now find them. Anyhow, we would always have a third prize. We are sure this is a loss to many a disappointed one, and if it only saves the stakes it is something in these hard times.—W.

### ALEXANDRA PALACE POULTRY AND PIGEON SHOW.

AT the request of numerous exhibitors we have decided on allowing more than one entry to be sent in a basket, but of course each compartment must be properly labelled, and if any of the birds be sold the exhibitor will be charged for a new basket. Respecting the question of conveyance, perhaps we may just state that birds coming from the north will be delivered direct at the Alexandra Palace, and so save the

expense and delay of crossing London. We would also call attention to the fact that this is only a three-days show. The birds are not required to be delivered until Monday, the show closing on Thursday, so they ought to reach their homes on Friday, or at the latest on Saturday, thus preventing the birds being confined on Sunday, which so many exhibitors object to.—W. J. NICHOLLS, P. H. JONES, *Hon. Secs.*

### POULTRY FARMING.

ALTHOUGH I had hoped to have seen several statements from others to confirm my few remarks published under the above heading in your issue of August 28th, I now submit for your inspection, as promised, an exact copy of my books, taking date in each case from September 1st, 1874, to September 1st, 1875.

Poultry to me has always been a hobby, but when first I entered into it I had no idea of its profits nor of working on so large a scale; and though I fear I shall be charged by some with much seeming egotism, still I can assure your readers I have no other object than to persuade those who love a country life and who will devote their time to this means of stock-raising, that it has interests new and fresh coming every day, and will assuredly bring a comfortable income to enjoy it. Few, perhaps, would go into the detailed trouble I do, as I know each week exactly how many head of fowls are in stock, and upon picking up any fowl can tell the month it was hatched in (i.e., by its marking).

I never allow anyone to gather the eggs nor to sit broody hens, but when they have taken to the nest I prepare thirteen eggs, marked in ink with date upon them, place them in a clean box in the hatching room, and after sunset take the broody hen from where she has chosen to sit and put her on to the eggs and close her up for thirty-six hours, or till the next morning but one. I am particularly lucky in hatching. I am satisfied that almost all chances of success rest upon the eggs being closely set on at the commencement, and if left after that for hours they will scarcely be hurt.

On September 1st, 1874, I possessed a stock of sixteen cocks and 169 hens and pullets. At that time having several sittings of eggs about to hatch for successive laying in March, April, and May, 1875, when most winter and spring layers are all at a time broody, the last lot hatched in 1874 being October 3rd, making at that time seventy-nine additional chickens, of which six died before Christmas. Six Geese, two ganders, four Turkeys, twelve Ducks, and three drakes, all for store; fourteen young Turkeys, fourteen young Geese, eighteen young Ducks, and twenty-two young cockerels for killing.

From this number of poultry I have raised, sold, and have balance in hand, and present stock, less that in hand 1st September, 1874, and the fifty-three fowls and five Ducks bought last August and added to pens, as follows:—760 fowls, 723 Ducks, 70 Geese, 41 Turkeys. Sold 16,389 eggs, producing a total of £268 14s. 8d., less cost £145 17s. 10½d., leaving as balance of profit £122 16s. 4½d., besides supposed value of feathers, £4, and of manure, £3, not credited against cost—really making £129 16s. 4½d. profit. In the detailed cost account packages, cartage, advertisements, stationery, postage, &c., amount to £18 0s. 6½d., against £38 4s. received for sittings of eggs sold; but it must also be remembered that through the advertising columns of the various papers there were also sold chickens, Ducks, Geese, and Turkeys amounting to £63 3s. 1d., which, it is probable, would not have been sold at those times and prices had it not been for advertising, so that it is estimated by me that the £6 7s. 8d. advertisement-costs induced sales in a total of £86 7s. 1d., which were attended with further expenses of £6 12s. 10½d.

I may also call attention to the prices asked for sittings of eggs sold, all of which were warranted fertile, and I was but asked to replace fifty-two out of a total of 2538—viz., eggs from Dark Brahmas; Dark Brahma hens running with Dorking cock; Dark Brahma hens running with Black Red Game cock, all at 2s. 6d. for thirteen, packed, and all from first-class birds. Rouen Duck eggs, 6s. 6d. for thirteen. The five Ducks cost £9 10s. East Indian Duck eggs, 5s. for thirteen. The Turkey eggs, bred from a cock now weighing 35 lbs.

If it be possible, then, at such prices and at so great an expense of feeding, as I consider my fowls have been extravagantly fed, how much more rather can be realised by those prizetakers and breeders advertising at 2½s. for thirteen eggs, and if unfertile second sitting at half price, making 1s. 2½d. per egg?

Had I been fortunate enough to have hatched say half of the expensive eggs bought by me, and sold at fair prices the produce therefrom, a greater profit would certainly be shown, as this year I really never sold but two birds at 7s. 6d., except broody hens, and after those nothing over 3s. each, and these cost quite as much to rear as those more extravagantly priced. However, everyone has a right to his own mode of conducting his business, and I have only attempted to show that with proper and above all prompt attention to poultry, as whether "hail, rain, wind, or snow," occurs, it will not brook delay, there is a livelihood for many who have plenty of time to devote to such a purpose.

I have added many valuable additions to my poultry stock, and next season intend, as in 1875, to warrant every egg sold to be fertile; and a new feature at this poultry farm will be that I shall undertake for one and all who entrust their eggs to me to provide broody hens, and set them here in a shed with 150 nests erected on purpose, and rear the chickens up to one month old at a small fixed fee. I am now drawing out in print a list and catalogue of various pens of fowls kept, and bearing some valuable information to all poultry fanciers.—GALLINACULTURIST, *Hampton-in-Arden.*

### CREWE POULTRY SHOW.

SEPTEMBER 17TH-18TH.

As to the general quality of the birds shown, nothing so good has taken place at any of the previous shows held at Crewe; and the tent arrangements were praiseworthy.

Game cockerels (any variety) headed the list, and, noted as it is, very rarely have so well shown a number of Brown Reds been seen in the neighbourhood. The two chief prizes were taken by Brown Reds; the third premium was awarded to a Black Red. It is worthy of note that some few of the most showy birds when "handled" proved to be wry-breasted, a fault for which every other good property cannot atone. It is well here to remark, too, on a great mistake now too general in the dubbing of Game fowls—viz., cutting them too closely in the wattles, as it entirely destroys the proper outline of the throat, besides failing to develop length of head, as desired by the party operating. It quite spoils an exhibition bird. The *Dorkings* and *Spanish* were both very excellent classes; many of the pullets having been raised early this season, were, however, after laying their first eggs, deeply moulting. In *Cochins* Mr. Sedgwick, and in *Dark Brahmas* Mr. Ansell, competed with grand pens, shown in exquisite plumage. *Poles* were fine, though not numerous; and *Orpingtons* were quite the best variety of the French fowls. *Game Bantams* were shown in capital trim, and some very fair Silver-laced Sebrights were winners. *Hamburghs* were well represented by capital pens from the well-known yards of the Duke of Sutherland.

In the classes for *Waterfowls* the restriction of birds of 1875 operated injuriously to a few pens of the best birds shown. We think another year such a restriction would be well withdrawn altogether, and yet more especially as to fancy *Waterfowls*, as the young of these birds are not yet in plumage. The weather was delightful, and the entrance gate consequently a success.

GAME.—Cockerels.—1, R. Ashley, Nantwich. 2, J. Chesters, Nantwich. 3, T. B. Lowe, Leicester.  
DORCKINGS.—1, Rev. E. B. Charlton, Lichfield. 2, J. Walker, Roobdale. 3, Mrs. E. Williams, Hemley Barrow.  
SPANISH.—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

### UTTOXETER POULTRY SHOW.

SEPTEMBER 16TH.

THE Judge was Mr. Teebay, and he expressed his opinion that it was the best show of young birds he had seen this year. There were 206 entries, a considerable increase on former years. The following were the awards:—

GAME.—Cockerels.—1, E. S. Godsell, Stroud. 2, G. Bagnall, Draycot. 3, G. Bagnall, 1, G. Bagnall, 2, W. C. Phillips, Worcester. 4, W. T. Everard, Ashby-de-la-Zouch. 5, Duke of Sutherland.  
SPANISH.—1, H. Blower, Wolverhampton. 2, E. Jackson, Wolverhampton.  
DORCKINGS.—1, J. Walker, Roobdale. 2, G. A. & W. H. Crewe, Etwell. 3, Grey or White.—1 and 2, Lady Bagot, Bagley.  
COCHINS.—1, C. Sidgwick, Keighley. 2, Mrs. Allsopp, Worcester. 3, Any other variety.—1, C. Sidgwick, 2, J. K. Fowler, Aylesbury.  
BRAHMA FOOTRAS.—Dark.—1, H. Lingwood, Needham Market. 2, Bridgewater and Yoxall, Wednesbury. 3, H. Lingwood. 4, K. Hyde, Hyde. 5, R. E. Horsfall, Liverpool. 6, T. A. Dean, Hereford. 7, P. Haines, Falmouth, Diss. 8, T. A. Dean.  
LIGHT.—1, R. E. Horsfall, Liverpool. 2, T. A. Dean, Hereford. 3, P. Haines, Falmouth, Diss. 4, T. A. Dean.

**HALLMARKS.—***Golden pencilled*.—1, C. J. Jenson, Peckham. 2, Duke of Sutherland. *Golden pencil*.—1, Duke of Sutherland. 2, Duke of Sutherland. *Golden speckled*.—1, Duke of Sutherland. 2, T. Bealson, Hamford. *Silver pencilled*.—1, Duke of Sutherland. 2, S. W. Hallam, Leicester.

**HOPDANS.—***Cocherels*.—1, J. E. Clayton, Stockport. 2, W. O. Quibell, Newark. *Yellow*.—1, J. K. Fowler. 2, E. B. Wood, Uxminster.

**ORRIS-GRUBS.**—1, Rev. J. G. B. Knight, Ripley. 2, R. B. Wood.

**TURKEYS.**—1, W. Wykes, Hincley. 2, Rev. N. J. Ridley, Newbury.

**CHICKEN.**—1, J. Walker. 2, J. Milne, Birkenhead.

**COCK WHITE.**—1, J. K. Fowler. 2, T. Beam, Sassen. 3, R. Kendrick, Llan. 4, J. Walker. *Any other variety*.—1, J. Walker. 2, M. Leno, Dunstable.

**EXTRA CLASS.**—1, Duke of Sutherland. 2, Miss A. Brooke, Shrewsbury.

FARNWORTH AGRICULTURAL SOCIETY'S  
POULTRY SHOW.

This was held at Farnworth, near Warrington, on the 18th inst.

**DONKEYS.**—*Chickens*.—1, J. Walker, Rochdale. 2, L. Pilkington, Widnes. 3, W. H. Crowe, Derby.

**WATERBURY.**—*Chickens*.—1, 2 and 3, T. F. Ansell, St Helens. *Chickens*.—Cup, 1, 2 and 3, T. F. Ansell, St. R. Pritchard, Tattenhall. No. F. Brookwell, Wigan; J. Bennett, Bishfluff.

**COCKS.**—*Cinnamon* or *Bug*.—1, E. F. Perivall, Northenden. 2, J. Walker. 3, C. Sidgwick, Kedgeley. *Chickens*.—1 and 2, C. Sidgwick. 3, W. Stanton, Driffield.

**COCKS.**—*Purridge-feather*, or any other variety. 1 and 2, C. Sidgwick. 3, F. Bennett, Bishfluff. Any variety than *Cinnamon* or *Bug*.—1, E. F. Perivall. 2, T. F. Ansell.

**GAMES.**—*Browned Red*. *Chickens*.—Cup and 1, J. Fletcher, Stoneolough. 2, B. Buxley, Winsford. 3, J. Linsell, Halshaw. *Brown-browned Red*.—*Chickens*.—1, J. Carlisle, Kirby. 2, G. C. Barnett, Kirkhead. 3, A. Clayton, Bradford. 4, J. K. Mallin. Any other variety. *Chickens*.—1, J. Baisell. 2, J. F. Walton, Ratonhall. 3, M. Jowett, Bradford. 4, G. Holmes, Driffield. *Cock*.—1, C. W. Brerley, Middleton. 2, Duke of Sutherland. 3, J. F. Walton, Rawtenstall. 4, L. Pilkington. 5, J. Chester, Manwith; C. W. Hierarchy.

**SPANISH.**—1, E. Walton. 2 and 3, J. Powell, Bradford. 4, E. Jackson.

**HAMPSHIRE.**—*Golden-pencilled*.—*Chickens*.—1, G. & J. Duckworth, Ascering-ton. 2, Duke of Sutherland. 3, H. Beldon. *Single*.—1, W. Spackman, Nantwich. *Silver-pencilled*.—*Chickens*.—1, H. Beldon. 2 and 3, E. W. Bracewell, Kirby. 4, H. Pichler, Kirby; Duke of Sutherland.

**HAMPSHIRE.**—*Golden-pencilled*.—*Chickens*.—1, H. Beldon. 2 and 3, G. and J. Duckworth. 4, H. Pichler. *Silver-pencilled*.—*Chickens*.—Cup and 1, Duke of Sutherland. 2 and 3, J. Fielding, Newchurch. 4, Ashton & Booth, Broad-bottom.

**POLSKA.**—1 and 2, H. Beldon.

**ANY OTHER VARIETY.**—1, H. Beldon. 2, W. J. Johnson, Liverpool. 3, Rev. J. C. B. Smith, Ripley &c. H. Pichler (Black Hamburg). 4, C. Sidgwick, Kedgeley (Black Hamburg); J. Sandeman, Dunce.

**MILKING COWS.**—*Chickens*.—1 and 2, J. M. Parry, Newton-le-Willows. 3, C. Smith, Wigan.

**BARNS.**—*Gams*.—*Cock*.—1, E. Walton. 2, R. Brownlie, Kirkcaldy. 3, E. Bell, Hurton-on-Trent. 4, J. E. Fletcher; M. J. Nelson. *Chickens*.—1, E. Walton. 2, G. Marples, jun., Wavertree, Liverpool. 3, J. R. Fletcher. 4, G. C. Barnett, Kirkhead. Miss M. J. Nelson, Hexham.

**WATERBURY.**—*Chickens*.—*Vegetable*.—Cup and 1, H. Beldon. 2, G. Hall, Keadell. 3, H. B. Smith, Broad-bottom. 4, R. H. Ashton, Mottram.

**DUCKS.**—*Rouen*.—Cup, 1, and 2, W. Evans, Whiston. 3, P. Unsworth, Newton-le-Willows. 4, E. Gladstone, jun., Broad Green (3); W. Evans; G. Butterworth, Liverpool; J. Brookwell, Wigan; F. Unsworth, Aylesbury.—1 and 2, J. Walker, Rochdale. Any other variety.—1, J. Walker. 2 and 3, H. B. Smith. 4, J. Walker. H. B. Smith.

**GEES.**—1 and 2, J. Walker. 3, H. Deacon, Appleton.

**TOMATE.**—1 and 2, J. Walker. 3, J. Brookwell, Wigan. 4, J. Knight, Farnworth.

**JUDGES.**—Mr. James Dixon, Bradford; Mr. George Fell, Warrington.

**STAMFORD POULTRY SHOW.**

The Northamptonshire Agricultural Society is erratic in its movements, like others of the same genus. We have followed it from Weedon to Kettering, and thence to Northampton, and now this year we find the tents pitched and the flags flying in Burghley Park, near Stamford. The schedule since last season has been entirely revised and much more money spent upon it. Still we doubt if all the changes are desirable; for instance, we find all the Game, Cochins, Brahmas, and Hamburgs classed in groups irrespective of colours. It is true each group has four classes, two for adults and two for chickens; but at this season of the year old birds must appear at a disadvantage, and it is not fair for all colours of Cochins or all varieties of Brahmas to compete together. Mr. Teebay awarded the prizes, and his awards were very favourably received. The classes were mostly well filled, and the meeting on the whole an unusually successful one.

Coloured *Dorkings* were very good. The adult cocks were mostly out of feather, except the first-prize bird; he was excellent, and deserved his place. Cockerels were a nice lot. The *Dorking* coop fell to a very fine hen in capital condition and feather. Pullets were also a pretty lot. White *Dorkings* did not muster well; the winners were, however, worthy specimens. *Game* made four most interesting classes. The old cocks were for the most part losing their feathers. The cockerels were good. A very forward and nicely-dubbed *Duckwing* won the sup. The hens and pullets formed two capital classes, especially the latter. We were altogether much pleased with the young *Game* classes at this Show. *Spanish* were moderate; the lady element much superior to the gentlemen. The coop fell to a grand old hen in good order. The winning pullet must have, however, pressed closely on her. Second and third also good. *Cochins* were good classes, but the old cocks were also in deep moult. In cockerels a good *Partridge* was first, and as yet a rare but most promising White second. In hens a fine White was first-and-sup. the same bird that we noticed at St Ives was

believe. The Cochin pullets too were a pretty lot. The second White was extremely good in all points, and third an admirable Partridge. *Brahmas* were a grand collection. Mr. Lingwood, in reply to our appeal from Birmingham as to where he could possibly be, here responded, and won the Brahma cup and all the four Brahma first prizes. There were other good birds in these classes, and Mr. Long sent some capital Lights, but all were far behind the Creeting team. The Brahma pullets were, however, certainly a very remarkable lot, and we noticed many birds worthy of prizes. *Hamburghs* were fairly represented, considering the insult they received by the classification. This no doubt kept many of our Hamburgh breeders away, but, as we have before stated, we can never rely on a good exhibition of this breed far away from the north. A nice Silver spangled won the cup. We notice Mr. Leno's name in these classes, and welcome him as a fresh addition to the midland Hamburgh exhibitors, and hope he will be a permanency. Mr. Long showed a good cockerel in smart condition, and Messrs. Faulkner and Judson had some well-marked Golden-pencils. The *Bantams* were good, but beyond the winners nothing calls for much notice. The Silver-laced were finely-marked birds, and we noticed some good Blacks and a very pretty pen of White-booted. The Any other variety classes were splendid, and the entries numerous. Crêves won the Hon's share of the prizes, including the cup and all the four firsts. We were glad to find them so looking up. The second, Silver Poland cock, was also a fine bird. The Houdans here present were not quite so good as usual, we fancied, though Mr. Dring sent two or three very good pens. *Geese* and *Turkeys* were very fine classes. It is some time since we saw better specimens of young birds at agricultural shows. *Ducks* were also very good, the *Aylesburs* especially. The ducklings were most promising, and the competition in *Aylesburs* unusually severe.

Pigeons were not large classes. We think they would pay for being better classified, and the Posters and Carriers more subdivided, but this Show seems to be great in making all the colours and varieties of the different breeds stand on their own merits, the one against the other, which in many cases is a most unwise proceeding. Mr. Yardley sent a very large collection of good birds, and took home a dozen prizes. The Carriers, Pouters, and Fantails were perhaps the best classes, though among the Toys, the winning Nuns, Jacobins, and Turbits were good specimens. We publish full list of awards below.

**DORKINGS.—Coloured.—***Cock.*—J. R. Wood, Clapton, Thrapston. 2, S. W. Hallam, Whitwick & W. Mord, Goss. *Cockerel.*—I. Vissout Turner, Shillden Park, Petworth. 2, H. Wood. & C. White, Clipham.

**DORKINGS.—Coloured.—***Hen.*—Cap. Rev. E. Barrum, Berkhamstead. 2, J. Robinson Garslang. 2, R. Wood. 2, C. White; W. H. Orsborne Levensham & 2nd & Marchioness.

ness of Kreier. Ann.  
Everard, Colonel--1  
Swiss, As. G. Carter.  
1. Deacon.  
Gunn, Hon--1 and  
Lemo.  
3 and 4, D. M. Mills.  
1. Jun. 3. H. Yardley.  
Yardley, 3. W. White.  
O. Sidgwick. 1. A. F.

W. H. Crabtree, & J.  
J. Long. Ac, L. C. C.

**B. NOTES; F. LIONS.**  
**BRANKIN**—*Hen*—Cup and L. H. Lingwood, S. W. Whitely, S. W. H. Crabtree, Ac, J. N. Beasley, W. H. Crabtree, Pullet—L. H. Lingwood, S. J. Long.

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## References

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**Journal of Management Education** 33(10)

**Figure 1**


 JOURNAL OF MANAGEMENT INQUIRY

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### 3.2.2.2. *Preparation of the monomer*

**Mr. H. Yardley.**



## PIGEONS.

H. Yardley, Birmingham.  
Wethin. Ac, W. Notting.  
14, Jan., Melton.  
W.  
Wethin, Ipswich.

Ac, E. H. George.

## CAGE BIRDS.

FANNEY.—1, A. C. Elliott, Stamford. 2, G. Woodwell, Easton. Ac, Mrs. W. Lown, Stamford.  
CANARY.—1 and 2, Knight & Spencer, Arlesey. Ac, L. Broughton, Stamford.  
CANARY MULE.—1, Knight & Spencer. 2, M. Kew, Oakham.  
LARK.—1, W. Pywell, Stamford. 2, M. Kew.  
THROUSE.—1, R. Butlin, Stamford.  
BLAZED.—1 and 2, M. Kew.  
ANY FANCY VARIETY.—1, W. Hubbard, Easton. 2, J. Jenkinson, Jan. Ac, M. Kew.  
CAGE OF NOT LESS THAN SIX BIRDS.—1, L. Broughton.

## RABBITS.

LOP-EARED.—1, Mrs. H. Pickworth. 2, H. J. Pywell. Ac, J. G. Deeborough; G. J. Speed.  
HIMALAYAN.—1, Marier Walton. 2, J. E. Pilgrim. Ac, E. A. Bolster.  
SILVER-GREY.—1, W. Smith. 2, E. V. Soell. Ac, M. Kew.  
ANGORA.—1, M. Kew. 2 and Ac, E. V. Soell.  
ANY OTHER VARIETY.—1, A. J. Roberts. 2, Mrs. H. Pickworth. Ac, T. C. Beasley (2); Mrs. H. Pickworth.  
HEAVY.—1, E. Thorpe. 2, J. T. Codling.

## NORTHALLERTON SHOW.

THE ninth annual meeting of this important agricultural association was held on the 17th inst., and the day being a most enjoyable one, the number of visitors was very large.

In the poultry and Pigeon department we find the Secretaries ever willing to convey suggestions to the Council, who are also ready to set upon them, and the consequence is that a show of little or no note a couple of years ago is now assuming most respectable proportions, and must ere long rank with the best of the Yorkshire summer exhibitions, which is saying not a little. The entries in all were near 350. The Show was held in the open field in the Society's own pens, which we suppose are to be replaced by some on a more modern principle.

Dorkings headed the list, the whole of the honours going to Waraby, the first-prize pen containing an extraordinary hen, but the cock being in bad feather lost the cup given by Mrs. Elliot for the best pen, which otherwise would have been awarded here. Game were poor except those noticed, which were all Brown Reds; the first and second, quite chickens, were very promising. Spanish were a very ragged lot of old birds, though the quality was very high. Cocks very good, the first to which the cup for the best pen in the Show was awarded being well-grown Buff chickens; the second splendid old Buffs, but sadly out of feather. Brahmas not so good as we expected. First a pen of chickens of fair quality, but the pullet a little light on the breast; second good old birds out of feather; very highly commended (Holmes), good chickens, but the cockerel far too young. Polish a grand class with almost every pen good. First Gold, and second White-crested Blacks. In Gold-spangled Hamburgs the first were a most correct pair of chickens, the cockerel one of the best out this season. In Silver-spangles the first and second were pretty good, but the two best pens (Robinson) were disqualified. In the first place a grand pen of chickens were thrown out on account of the cockerel's comb having been shaved, and was smooth and white on the serrating. When the class was judged, however, the first was placed on a splendid pen of old birds in apparent full feather, but on judging for the cup the cock was more thoroughly handled and examined, and was found to have had both sickle feathers inserted in the sockets of the old ones, showing that in this case at least it took two or three birds to make one good one. Gold-pencils a moderate lot, first young and second old; and in Silver-pencils the winners were mixed in age and pretty good. In the Variety class the first were nice Oréve-Cours, and second Malays. Game Bantams were a fair lot, the first chickens, and second old birds, and both Black Reds. Pen 108, very highly commended, were splendid Brown Reds, but did not match in leg. The Variety class was a good one, all being Black with one exception, where the second was awarded to a nice pair of Silver Sabrights.

Rouen Ducks very good in size, colour, and bill, as also the Aylesburys. Ducks, any other variety, were, first Black, and second White Decoys. Turkeys and Geese very good and large. The Selling class was very large, but there was nothing of note except the winners, which were Oréves, Light Brahmas and Game Bantams.

Pigeons were a good entry, but in some of the classes the birds were anything but good if the winners be excepted, this applying to Carriers, Jacobins, and Tumblers. In Pouters, first were Blue, and second White, and very good. The Fantails a fair lot; and Turbits, which were a large class, were very good, the first Blue, and second Yellow. Nuns were perfect as regards

the winners; and every pen of Magpies was well worthy of a place. In the Variety class an exquisite pair of plain-backed loes were first, and Red Dragons second, almost every other pen being noticed. In the Selling class Blue Turbits were first, and Trumpeters second.

Rabbits had two classes, and in bucks first went to a good Tortoiseshell 23 by 4½ inches, and second to a Fawn 23 by 4½, no other being of any note. In does a pretty fair Belgian Hare was first, and a Fawn-and-white Lop (too gay in colour), 21 by 4½, second; a few others being also noticed.

DONKEYS.—1, 2, and 3, J. White, Waraby. Ac, A. Jackson, Broughton; J. White.

GAMES.—1 and 2, W. Youngshusband, Darlington. Ac, W. Youngshusband; — Sanderson, Old Ormsby, G. Carter, Bedale. 4, Blackburn & Maynard, Northallerton.

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## THE JACOBIN.

LIKE Mr. Huie I was astonished at the last Crystal Palace Show to hear for the first time that one of the qualities of the Jacobin was the rose, and when it was pointed out to me I at once said it was a defect instead of a property. I was told that that was what they were breeding for now, and the more perfect it was the better the bird. Whereupon meeting some old friends of mine, old men as well as true fanciers, I took them to see the new invention, and finding that it was as novel to them as myself I dismissed the matter from my mind altogether. Hence the reason I did not mention it in my last letter on the subject, but I now write to thank Mr. Huie for taking notice of the heresy. The Jacobins of the present day are too short in feather, and are much more of the Tumbler form than the old and true type. They were, as Mr. Huie describes them, long in flight and tall, otherwise it would have been impossible to have obtained that marvellous length of frill which they possessed, the feathers lapping over each other on the breasts of the birds instead of the wide space we see now-a-days, looking at them at the full front.

Another point I often see very deficient, and that is the colour of the thigh. Frequently there is white mixed with the ground colour, and it ought to be one firm solid tint, the same as the



wings, until it reaches the vent. But modern fanciers are not so particular as to feather as are many of the older fanciers, or else we should see less of the dingy reds and yellows, many of the latter almost mealies, and of the former strawberrys.

Where are the beautiful Blue Jacobins? One never sees them now—no, not with all the prizes that are offered for good birds, nor do we see those deep rich yellows. Where are they? Can no one be tempted to *breed up* again these fine old sorts, or are we really, as an excellent fancier over eighty years of age said to me, "Sir, where are the fanciers?—there are plenty of exhibitors." And so there are, and yet some very good fanciers are, I am glad to say, still taking a delight in breeding and keeping their birds; but I am sorry to find that in the majority of cases having obtained a pair of good birds they are sent about the country from show to show until they are worn out. No doubt there are good birds still in existence in the hands of private fanciers, who love their birds too well to send them about to shows and on long journeys, and possibly ere long we may see some of the true old sort of Jacobin, true in form, feather, and colour, perfect types of the breed. Higher prizes will not improve the breeds, nor do cups for the greatest number of prizes won by one person, as this is quite a mistake, and only leads to the borrowing of birds, even pairs being made up in such manner simply for the purpose of winning a few shillings, and not for the honour of having bred and reared the winners. When it comes to this we shall have better birds, and I am afraid not until then.—HARRISON WAIN.

### PROFIT AND EXPENSE OF REMOVING BEES.

A CORRESPONDENT, "C. F. F.," wishes to know "where the nearest heather is from Hinckley, Leicestershire, and what arrangements are generally made for placing hives on or near the moors, together with the expense. Would it pay to take half a dozen hives thirty or forty miles to the heather in the proper season? I am asking this as information for another year. What weight of honey would a super hold containing 200 square inches?" As the questions of "C. F. F.," touch a subject of interest to many readers, it may be well to answer them here instead of through the "Letter Box."

I cannot tell our friend how far Hinckley is from a good field of heather, but fancy he will easily ascertain this from some of his neighbours. I remember passing a considerable breadth of heather in Warwickshire some thirty years ago. I am better acquainted with the localities farther north, where heather abounds. There are magnificent seas of heather in Staffordshire, Derbyshire, Yorkshire, Cheshire, and the more northern counties. In the most southern counties of England—viz., Sussex, Surrey, Hampshire, and Devon, I believe heather in abundance may be found. Bagshot moors are within an easy distance of London bee-keepers. Nothing need be said of Ireland, Scotland, and Wales where heather superabounds. The Cheshire and Derbyshire moors are within fifteen miles of Manchester, and to these we are indebted for our heather honey.

As to arrangements and expense of placing hives on the moors, it may be well to confine my remarks on this point to my own experience. This year I took thirty-two hives only to the moors. In former years I took twice that number. I pay a greengrocer 4s. for taking a load of sixteen hives (that is 8d. per hive) to Manchester, a distance of five miles and a half. There the hives are taken from the cart and put into the luggage van of a passenger train, and carried up the Sheffield line of railway, nineteen miles, to Woodhead for 8d. per hive. The hives are placed within the company's line or outside of it under the care of the stationmaster. Crowden station is two miles nearer Manchester, and there I have placed hives every season for fourteen years. Both are excellent places for heather, but not better than many others on the Glossop (Duke of Norfolk's) moor. I prefer them for convenience, being able to place the hives within forty yards of the stations' platforms. No rent or charge is made by the stationmasters at Woodhead and Crowden. All that the bee-master can do is to remember that one good turn deserves another. The expense of carriage home from the moors is about 1d. or 2d. more per hive by the railway, as they are considerably heavier when they return. They go in lots of fifteen and sixteen, that number being as many as the greengrocer's cart and the guard's van will take at once. They return in lots of thirty hives, as I engage an empty van, called "a dummy," on purpose, fill it at the station, and have it attached to a returning passenger train from Sheffield. The thirty hives are met at Manchester by a lorry or plant van, which brings them to Sale. The expense of thirty-two hives in going from Sale to Woodhead and back, a distance of twenty-five miles, including carriage and all gratuities, is less this year than 50s., considerably less than 2s. per hive.

The cottagers on the skirts of moors in England and Scotland generally charge from 6d. to 1s. rent per hive, and are very pleased to earn money so easily. The bee-keepers in the neigh-

bourhood of Middleton, near Manchester, engage a cart to take their hives to the moors near Mossley and Greenfield, place and cover them, and bring them back at the end of the season at 2s. 6d. per hive. The cottagers there charge 6d. per hive only.

"Does it pay?" "Is it worth the trouble and expense to take bees so far in this uncertain climate?" I have found it profitable, and all the apirians I know who keep bees for profit find that there is, taking a run of years, much gained by taking bees to the moors. The most I have ever known a single hive gain on the heather was 70 lbs. This season many of the large hives or first swarms gathered and stored-up about 50 lbs. each in fifteen days. Thirty of my hives came home about 1000 lbs. heavier in all than they were when they went to the moors. In former years I have taken stronger hives to the moors than I did this year, but owing to the weather being so unfavourable in July for bees, they had to a lamentable extent ceased to breed. Their brood combs—indeed, all their combs, were nearly empty by the 14th of August when the weather became favourable for honey-gathering. The bees having but little brood to attend to and plenty of empty combs, very speedily gathered great stores of honey; really they poured it into their hives during the last fortnight of August.

I kept twelve hives at home this year, and during the heather season they have been kept alive with sugar. After July bees gather very little honey from clover, though the weather may be fine. Those who remove their bees to the moors have three chances or seasons of honey-gathering: first, the fruit trees; second, the clover; third, the heather. My profits for the last six or seven years have been mostly realised from the heather.

While I am pretty constantly advising the apirians of Great Britain to keep strong stocks, I humbly confess that I need lecturing on this point, for every season I have ample evidence that from strong stocks or early swarmers only great results are obtained. While some of the early swarmers and early swarms gathered 40 and 50 lbs. each, the later and weaker swarms would not gather more than 20 lbs. each, and the trouble and expense of removing and managing the one is as great as the other.

A super containing 200 square inches will I think, hold 7 or 8 lbs. of honeycomb. One of my swarms filled a super on the moors which weighed 28 lbs.

In stating the expenses of my bees above I have omitted my own railway fares, which are about 8s. 6d. a journey to and from the moors.—A. PATTINGAW.

### HONEY SEASON IN CHESHIRE.

At the beginning of the season I had only two hives of bees in 16-inch straw skeps of the Pettigrew pattern. The bees did very well on the fruit and sycamore blossom, and I drove a swarm from No. 1 hive on the 15th May, and one from No. 2 on the 29th May. I had a second swarm from No. 1 on the 28th May, and a second swarm from No. 2 on the 16th June. I drove out the bees from stock hive No. 1 on the 5th June, and from stock hive No. 2 on the 19th June. By this means I increased the number of my hives to six, all in new clean 16 or 18-inch skeps, having taken the honey from my two stock hives. During July the weather was wet, and occasionally I had to give my bees a few pounds of sugar to keep them from starving, but clover was plentiful and they did not require much feeding. I took my six hives to the moors on the 2nd August, all feeling light, although three of them were strong in bees and comb. The weather was good in August; and when I brought my hives home on the 8th September they weighed respectively 90 lbs., 88 lbs., 60 lbs., 52 lbs., 46 lbs., and 32 lbs., including hives and boards.

The following is the nett result of my honest harvest for the year—92 lbs. of run honey and 34 lbs. of honey in the comb; besides which I have sold two of my hives for £2 each, and I have two good stock hives which I am keeping for next year.

In taking the honey from my strong hives I joined the bees taken from them to those in the weaker hives, and by that means made the latter very strong in bees for next season's work. I feel sure that my success is to be attributed to the use of large straw hives, and taking the hives to the moors when the clover season was over, and giving the bees five or six weeks more of a season on the heather.—E. THORP, Sale, Cheshire.

### LIGURIAN BEES.

As a bee-keeper for the last twelve years may I reply to "A YOUNG APIARIAN," page 217? In the spring of 1870 I purchased from an importer six Ligurian queens, and introduced them to black stocks, and every year since have purchased a further supply. I have now ninety stocks of bees, black and Ligurian, in my apiary, and from careful observation I am convinced that the Ligurians are one-third the best; they swarm earlier, they breed later, and are more prolific. I have every year repeatedly

seen one-third more Ligurians go home from work in a given time than the blacks. I have such belief in their superiority that I intend to ligurianise the whole of my stocks this year.—J. H. HEDINGTON.

### FOUL BROOD.

FOUL brood may be found in many hives, and as it is destructive of all healthy action in them, bee-masters should be constantly on the watch for its existence. Three weeks after swarming and the month of September, when all healthy brood has been hatched, are the two seasons for thorough examinations of hives. If then some cells be found with lids on them strong suspicion should be excited. If the point of a slender of wood be pressed into these covered cells the foul brood or offensive matter will become apparent. It has recently been described as like the gravy of red meat in colour and appearance. Every hive containing foul brood should be condemned and not kept as stock. The bees should be united to other stocks or put into clean hives and feed.

The late Mr. Quinby was of opinion that the honey of hives infected with foul brood carried the infection to other hives if given to their bees. On this point we differ in opinion from him. We have had swarms naturally and artificially from hives containing foul brood, and though bees in swarming carry off as much honey as they can, we have never found them carry the disease to other hives. We have seen hives so extensively diseased with foul brood that the honey could not be taken from the combs separately by the hand of man. We have allowed the bees of other hives to clean the honey from the brood in such cases, but have never known the disease carried with the honey. Mr. Quinby was an able apiculturist and an independent thinker, but on this point I think he and others have failed to furnish proof in support of their opinions. The readers of this Journal will do well to examine their hives as soon as possible to find if foul brood is in them. If it exists at all now it will spread as soon as breeding commences. It is an incurable disease.—A. PATTISON.

### OUR LETTER BOX.

**SHOWING A DUBBED GAME COCKEREL (O. F. S.).**—A Game cock may be shown after he has been dubbed a fortnight, or even earlier. It is wonderful how soon they heal. A hackle feather should be laid on each cut; it stays the bleeding and helps to heal the wound. We often turn birds out that have been only dubbed four days, and but for the black marks that show the future doctor no one would know they had been operated upon. We have no doubt the lumping you mention proceeds from some injury, though it may not be perceptible; perhaps a thorn, perhaps a small piece of glass. Pass your thumb over the foot, and see if he shrinks. Handle the leg from the foot to the insertion of the thigh bone to see if there be any tender part. If there is nothing to be felt there is a sprain somewhere else, and he will get over it.

**FOWLS' LIVERS ULCERATED (Westcroft).**—The fowls you mention should be very strong. We do not think your feeding is good enough for hens that are laying and sitting. Insufficient or poor food always induces disease of the liver in poultry or game. That is the cause of the death of your birds. Rice is bad food. If you make up your mind to feed only once per day, it should be towards evening. In the morning a grass run afford three times as much food as it does in the evening. They should be induced to seek it by having nothing given to them. They have the day before them. If you feed just before they roost you then enable them to get through the longening nights without damage. We, however, advise you to feed night and morning, maize and barley mixed. An asphalt floor is bad, because it is unyielding to the feet of the birds, and because it affords no scratch. It causes disease of the feet and knees, and induces paralysis. Gravel or road grit or common earth mixed with some chalk are the best things.

**MR. BURNELL'S BUFF COCKER COOK (W. J. F.).**—Both stuns are correct, for there were two offers for the bird in question from different parties. Neither of them was accepted by the owner.

**THE CHIEF POINTS OF A GOLDFINCH (C. F. F.).**—The all-important point in a Goldfinch, as in all others of the feathered tribe, is condition of plumage, without which other points of perfection are almost entirely useless. A cock bird should be of good size for exhibition purposes, which is preferable to a small one, and shows off the following points to greater advantage:—Head, bright scarlet red, showing no white speck or mark on the throat; the back part of the head and near the back sides of the neck deep black; beak, large and pointed; breast, the centre white, with the sides of the breast pure brown; back rich brown; cheek and sides of neck white, the whiter the better, in fact distinctness of colour throughout is much to be considered. Larger covers well-marked with pure yellow; feathers close and in good bright condition; wings and tail and feet perfect; the thighs grayish; pinion feathers velvet black, with whitish tips, which are smallest in old birds; tail slightly forked and black, the two and sometimes the three outer feathers on each side having a white spot in the centre of the inner web. In some parts birds marked as last specified are termed "three by sixes," owing to having three feathers on each side of the tail spotted or mooned with white.

**AN AFFLICTED PARROT (Mrs. Mallory, Woodcote).**—From the remarks in your letter we fear there is faint hopes of your Parrot ultimately recovering. The affection in the throat and whistling and wheezing noise are very unfavourable symptoms. Very likely the apparent obstruction in the throat will become more evident, and a spasmodic fit may follow. If so, lay hold of the bird around the throat and immerse it in a warm bath, and after holding it in two or three minutes, syringe or squirt over the bird's neck a little brandy. You may administer a few drops of castor oil. If you have done so supply it with bread and milk as a general diet, and give a little ripe fruit. No meat. Water will not be required. Discontinue the Indian corn, more especially as the Parrot appears to suffer more after partaking of it. For healthy birds it is good sound food, but should be soaked before giving.

When the sun is shining at midday give the bird a shower bath, after which place the bird and cage before the fire, so that the Parrot may become warm. Let the bird have rest by keeping the cage covered. A little weak brandy would be better than strong, particularly when the bird appears to suffer after its food. The bird's filth is the cause of its ceasing to talk.

**GREENFLOWER LARVAE FROM RABBIT (P. M.).**—The larvae and stalks are good food for any animal that will eat them.

**BEES IN HOLLOW TREE (D. Green).**—As the hole or aperture in the tree leading to the cavity containing the bees and honey is so small (3/4 inches wide), the easiest way of securing the honey would be by killing the bees with powder or kerosene, and then placing a strong hive near the place, the bees of which would soon fetch the honey from the tree and store it up in their own hive. Every particle of honey would be removed with but little loss.

**BREEDING BEES (F. J.).**—By feeding your bees slowly, or at the rate of 1 lb. of sugar every two days, they will be kept in a state of excitement for weeks, and store up very little food. By giving every five 6 lbs. per day, the most of it will be stored up, the excitement in the hive, the cause of fighting and defence, will last but a short time, and the bees will speedily settle down to the quietness of winter life. If you do not wish to promote breeding and the consumption of food in your hives, the more rapidly they are fed the better in autumn.

**WASPS (F. W. H.).**—Without being certain that we are correct, we have always considered that wasps do not increase in size after emerging from the pupa state. There are wasps of various sizes in each nest; the females are the largest, and there are of them two sizes. These are produced later than the workers, and may have given rise to the opinion that wasps grow.

### METEOROLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.					Rain.
1875. Sept.	Barom. at 3 p.m. and Sea Level.	Hygrom- eter.		Direction of Wind.	Force of Wind.	Shade Tem- perature.		Radiation Temperature.				
		Dry.	Wet.			Max.	Min.	In sun.	On grass			
We. 15	30.178	64.5	69.0	N.W.	61.0	71.4	64.0	117.0	49.1	In. —		
Th. 16	30.088	69.8	68.5	N.W.	61.2	72.1	69.7	118.5	45.8	0.006		
Fri. 17	30.093	62.3	61.8	N.	61.0	74.3	64.1	118.5	46.6	—		
Sat. 18	30.071	65.7	63.2	N.N.W.	61.2	80.8	62.1	115.0	49.6	—		
Sun. 19	29.938	70.1	68.5	N.	60.9	79.9	65.4	116.4	46.2	0.010		
Mo. 20	29.968	63.9	68.0	S.W.	62.1	73.8	68.9	119.0	49.9	0.008		
Tu. 21	29.997	68.9	67.1	N.W.	61.5	68.3	65.9	75.0	49.3	0.005		
Means	30.057	64.0	60.3		61.4	74.2	65.5	109.9	49.4	1.100		

### REMARKS.

15th.—A most beautiful day, and the moonlight night equally fine.  
16th.—Very fine all day, but gradually clouding over towards night.  
17th.—Thunder from 1.35 to 2.5 A.M., heavy rain from 1.35 to 1.50, and morning; fine in the middle of the day, but dark and close in the evening and night.  
18th.—Misty till 8 A.M., then fine, but close and uncomfortable; cooler at night.  
19th.—Fine morning, but dull after 3 P.M., and rain about 6 P.M.  
20th.—Fine morning; showery from noon till 2 P.M., and fine afterwards.  
21st.—Misty and very dark all day; rain commenced about 7 P.M., and continued till nearly midnight, at times very heavy.  
The mean morning temperature rather higher than during the last few weeks, but the air damper. Very heavy rain on night of 21st.—G. J. SYMONS.

### COVENT GARDEN MARKET.—SEPTEMBER 22.

A heavy supply and trade quiet have prevented common goods being cleared as well as we could wish. Foreign produce remains the same as last week; but a large quantity of St. Michael Pines have just arrived, which will fetch low prices on account of the hot weather we have experienced lately. A better supply of Kent Cobs and Filberts this week at downward prices.

### FRUIT.

	s. d.	s. d.		s. d.	s. d.
Apples.....dozen	0 0	0 0	Mulberries.....lb.	0 10	1 0
Apricots.....dozen	0 0	0 0	Nectarines.....dozen	1 0	8 0
Cherries.....lb.	0 0	0 0	Oranges.....dozen	10 12	20 0
Quinces.....bushel	0 0	0 0	Peaches.....dozen	1 6	18 0
Currants.....dozen	0 0	0 0	Pears, kitchen.....dozen	0 0	0 0
Black.....do.	0 0	0 0	Pears, dessert.....dozen	1 0	8 0
Figs.....dozen	0 0	0 0	Pine Apples.....lb.	0 0	0 0
Filberts.....lb.	0 0	0 0	Figs.....dozen	1 0	2 0
Cobs.....lb.	0 0	0 0	Quinces.....dozen	0 0	0 0
Gooseberries.....quart	0 0	0 0	Raspberries.....lb.	0 0	0 0
Grapes, hothouse.....lb.	0 8	0 0	Strawberries.....lb.	0 0	0 0
Lemons.....dozen	0 8	12 0	Walnuts.....bushel	0 0	12 0
Melons.....each	1 0	5 0	ditto.....dozen	1 0	1 8

### VEGETABLES.

	s. d.	s. d.		s. d.	s. d.
Artichokes.....dozen	0 0	0 0	Leeks.....bunch	0 0	0 0
Asparagus.....dozen	0 0	0 0	Lettuces.....dozen	0 0	1 0
French.....bushel	0 0	0 0	Mushrooms.....pottle	0 0	0 0
Beans, Kidney.....dozen	0 0	0 0	Mustard & Cress.....pucet	0 0	0 0
Broad.....dozen	0 0	0 0	Onions.....bushel	0 0	0 0
Beet, Red.....dozen	0 0	0 0	Pickling.....quart	0 0	0 0
Broccoli.....dozen	0 0	0 0	Parsley.....doz. bunches	0 0	0 0
Brussels Sprouts.....dozen	0 0	0 0	Peas.....dozen	1 0	0 0
Cabbages.....dozen	0 0	0 0	Potatoes.....bushel	0 0	0 0
Carrots.....bunch	0 0	0 0	Peas.....quart	1 0	1 0
Cauliflowers.....dozen	0 0	0 0	Potatoes.....bushel	0 0	0 0
Chicory.....dozen	0 0	0 0	Radishes.....doz. bunches	1 0	1 0
Colewort.....dozen	0 0	0 0	Rhubarb.....bushel	0 0	0 0
Cucumbers.....each	0 0	0 0	Salsify.....bushel	1 0	0 0
pickling.....dozen	1 0	0 0	Scorzonera.....bushel	0 0	0 0
Endive.....dozen	1 0	0 0	Seakale.....bushel	0 0	0 0
Fennel.....bushel	0 0	0 0	Shallots.....lb.	0 0	0 0
Garlic.....lb.	0 0	0 0	Spinach.....bushel	0 0	0 0
Herbs.....bushel	0 0	0 0	Tomatoes.....dozen	0 0	0 0
Horseradish.....bundle	4 0	0 0	Turnips.....bushel	0 0	0 0
			Vegetable Marrows.....doz.	1 0	2 0

## WEEKLY CALENDAR.

Day of Month	Day of Week	SEPT. 30—OCT. 6, 1875.	Average Temperature near London.			Sun. Rises.		Sun. Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
30	Th		85.0	45.8	54.2	1	at 6	39	at 5	57	at 6	50	at 5	1	8	1
1	F	Pheasant shooting begins.	85.4	44.7	54.1	2	6	37	5	11	8	1	6	2	10	31
2	S	Length of day 11h. 40m.	84.4	43.9	54.1	4	6	35	5	27	9	15	6	3	10	40
3	Sun	19 SUNDAY AFTER TRINITY.	83.7	41.5	52.6	6	6	33	5	43	10	23	6	4	10	58
4	M		83.7	42.4	53.1	7	6	33	5	55	11	53	6	5	11	16
5	Tu	Twilight ends 7.18 P.M.	80.5	40.8	50.4	9	6	28	5	after.	88	7	6	6	11	34
6	W	Royal Horticultural Society—Fungus Show. Meeting of Fruit and Floral Committee.	61.8	43.2	52.5	11	6	26	5	3	2	21	8	7	11	52

From observations taken near London during forty-three years, the average day temperature of the week is 53.2°; and its night temperature 42.7°.

## SOIL AND CLIMATE IN RELATION TO PRACTICE.



HERE must appear to on-lookers to be sometimes a very great difference in the theory and practice of two gardeners who are differently situated, and both of which are known to be fairly successful. The one seems to act altogether in an opposite direction to the other, and apparently to condemn almost everything the other proposes. This must be very enigmatical to those who have had no chance of experimenting under different

conditions in various parts of the country, for no one but the initiated can possibly believe that soil, climate, and the demands and resources of a place can have so much to do with moulding a man's practice as they really have. Reverse the positions of two men who seem to act in entirely opposite directions, and you would probably find in the course of a few years, if both had equal natural ability and both had been well schooled in the rudiments of horticulture, that each would materially alter his practice.

The gardener who has been educated in several places widely different from each other knows well that the same practice will never answer in two different places, and hence we find that the wider our practice extends the more we have to learn, and the less conceited are we. Young men who remain in their first place for several years, and find there is nothing more to learn there, are astonished when they go to a strange place and find things totally different, and that they have very much to learn. At first they are inclined to think it is not themselves in fault, it must be that those they have the misfortune to be placed under in their second situation cannot know much about the work, and they more than hint that the work was not done in that way at the Squire's or the Duke of So-and-so's. By degrees they find out that their new master's practice is equally successful as that of their former one, and from this moment begins their real education; they discover that gardening is not a mathematical science, and they put themselves on a new tack.

I was led into this train of thinking on reading of Mr. Luckhurst's system of applying heavy surface dressings of manure to fruit borders and to many of his growing crops, the results of which he has detailed in one or two papers lately; and now in the interesting notice of Oldlands by "A VISITOR" I read, "For fruits especially, in Mr. Luckhurst's estimation, it has quite superseded the practice of digging-in." Of course I cannot doubt for a moment the soundness of Mr. Luckhurst's practice, the results speak for themselves; but, for all that, I can assure your readers that I have no intention of adopting it here, and for this reason—that my soil is almost too heavy to be called a soil at all; it is clay, and such heavy clay too that if it lies a year or two unmoved it is almost impervious to air, and becomes, consequently, sour. To cover such a soil with manure and leave it on the surface would only make matters worse. Even the litter we are obliged to

put among the Strawberry plants to keep the fruit clean does some injury in this respect, and it is cleared off as early as possible; and in spring, too, quite in opposition to what would be sound practice on light and medium soils, we dig a little light manure in a full spit all over the Strawberry beds, and quite close to the plants, leaving the soil rather rough and hollow. For all this the plants never require water, and the crop of fruit is such as no light soil can produce. It will be seen by practical men that the little manure we dig-in is more for the purpose of aerating the soil than for stimulating the plants, and consequently light littery stuff, such as that from a spent hothed, is as good as anything for the purpose.

With regard to the Peach trees described by Mr. Luckhurst and "A VISITOR," I frankly own that if I had them I should be proud of them, and probably should not attempt any other system of training while they continued in health; but I have tried something similar here on two different occasions, and either from unskilful management or an unfavourable climate (I very naturally attribute it to the latter), the trees, after growing respectably a year or two, either died or grew very unsightly and invited removal. From past experience here I do not expect my Peach trees to last more than five or six years, and I mean to have what I can out of them in that time.

It will be seen from what I have written elsewhere that I am no advocate for cordons and miniature trees in general; but although I recommend what some people call the extension system with all trees where they can be so grown, for the fruit is always of better quality from a tree which is allowed to extend itself moderately, I do not blindly follow that system where it does not prove satisfactory. The principal reason it does not prove satisfactory here with the Peach is that the long growths do not become matured, and necessitate some method of pinching and shortening. I have adopted the plan described at page 197 for its simplicity.

I wonder if all gardeners have a bad soil and climate to deal with? There is a popular idea—it may be a popular error—that Sussex is not the worst county in England in which to grow fruit, but it does not seem to come up to Mr. Luckhurst's idea of a good climate. I must, however, say plainly that I think his magnificent trees point to something else besides skilful management.

I gave in my former notes the dates of picking the first fruits of the earliest sorts from the trees. Since then I have had Hunt's Tawny Nectarine, 28th of August; Grosse Mignonne Peach, 30th of August; Bellegarde, 3rd of September; Dr. Hogg and Stirling Castle Peaches, Violette Hâtive and Oldenburg Nectarines, 4th of September; Downton and Elruge Nectarines, 7th of September; Barrington, Prince of Wales, and others are not fully grown yet (September 20th). Most of the fruits would be a week or more after the above dates before they were fit for table. I gather them when if taken hold of with the whole hand they feel slightly elastic. Stirling Castle is in appearance very much like Belle-

garde, and perhaps slightly inferior to that noble Peach. We do not want both kinds.—WILLIAM TAYLOR.

### A TRIP TO LONDON.—No. 1.

I THINK it was London who said that a gardener ought to visit the metropolis at least once a year, and he was undoubtedly right, even in his day, when the world, or rather the people in it, went at a more sluggish pace than in our own brisk time; and much more so now that cheap and rapid travelling is so general.

An interchange of ideas, a discussion of critical points of culture, of success or failure, its cause or remedy, and other matters of common interest, cannot fail to be beneficial. To study different features in gardenesque scenery, such as combination of colour as in flower beds, of forms stately, symmetrical, quaint, or grotesque, as in shrubs and tropical and alpine plants; to see new plants and such other objects of interest as new garden structures and implements;—these are some of the objects which we blue aprons have then in view, and not mere pleasure in the common acceptance of the word; and I think it may fairly be claimed that an outing with such aims and ends points to praiseworthy results—self-improvement of the individual, by which his services will become more valuable, and his future efforts tend more directly to his employer's advantage, as well as a relaxation and break in the daily routine of life's duties and cares. The best time for such an excursion is undoubtedly the autumn, and if possible during the holding of one of the large fruit shows, so as to meet as many "kindred spirits" as possible. Having lately enjoyed such a trip, it is purposed in this and one or two more communications to give a sketch of what was seen, and to call attention to such matters as were noteworthy.

In the journey to and around London two things impressed me as affording evidence of a general growth in culture and refinement. The first were the numerous bouquets in the hands of travellers and the manner in which they were made; a neat rounded globular outline and moderate size was the common characteristic, differing so agreeably from those high flat-backed masses, with a backing of "Lad's Love" and Rosemary of our youth. It was amusing to see how they were cherished; one was actually carried with the stalks inserted in a glass of water, and another in which the flowers were closely packed was, as the owner assured me, to be taken to pieces and utilised for dressing "all the vases at home." A bright young maiden this, returning to her town home from a seaside holiday, bearing back a bit of country brightness and freshness to gladden the heart of the grey-bearded father who was awaiting her return at the station.

The second point of attraction was found in the many excellent flower gardens at railway stations, suburban villas, aye, and even fronting many a suburban cottage—neat and trim and bright, many of them containing really exquisite little bits of carpet bedding, denoting much attention and care, and presenting a charming contrast to the few straggling dust-laden plants in adjoining plots. These were all particularly interesting and attractive, not only for their intrinsic worth and beauty, but as affording evidence of what an important educational work is being done by the superior order of gardening now practised in our large public parks and gardens.

The first place of note which I visited was the Alexandra Palace, and I must confess to a feeling of considerable disappointment with many things which came under my notice. In this instance, as is frequently the case, I had probably anticipated a more finished scene than the reality proved to be—grounds highly dressed, elaborate terraces with that massive balustrading which imparts dignity, and that accompaniment of vases and statuary which add elegance and grace; all this will no doubt be gradually added with other necessary features to impart an air of greater warmth and fulness to the grounds.

The Fruit Show which was held at the time of my visit, although not answering to its somewhat ambitious title of "International," was undoubtedly a fine one in many respects, losing much in effect, however, from the brilliant, almost gaudy decorations of the magnificent hall in which it was held. The eye, while yielding to the attraction of the fruit, involuntarily sought for some foil, some repose to bring out its full charms. The cool fresh greenery of Palms and Ferns dispersed among the dishes, and a slight ornamental awning suspended over the tables would, I think, have effected this admirably, and imparted a perfect finish to the sumptuous display. There exists a wide difference of opinion in all such

matters of taste. The crowded state of the Show, especially on the last day, showed clearly how much the Exhibition was appreciated.

Flower beds are not numerous here, the principal display being in an interior court, which was very bright with colour. The walls of this court are being covered with purple Clematis, with which I would suggest an admixture of Camellias—always ornamental in their glossy green foliage, and of surpassing beauty when in flower. These would answer well here, as would many choice semi-hardy climbers. Most of the trees and shrubs are still too small to produce much effect. Araucarias are evidently not flourishing, and judging from my own experience I should say decidedly that plants of 2 or 3 feet high would answer much better than large specimens in such an elevated and exposed situation. It is only under very favourable circumstances that large specimen Conifers should be transplanted, for during the four or five years which they require to become thoroughly established younger plants will rush past them, taking and keeping the lead.

Let me give an example, for this is a matter of the highest importance. A dozen Thuja Lobbi, nice specimens, 8 feet high, and with compact balls of soil about the roots, were planted with all due care about four years ago. During the same season I happened to purchase two hundred young plants of this same Thuja 2 to 3 feet high, and standing in close nursery rows; they were put in the home nursery and transplanted year by year to permanent stations as required. At the present time some of them are quite 12 feet high, while none of the first-planted specimens are more than 10 or 11 feet. The younger plants have taken the lead, and they will keep it. The growth of one of them last season actually exceeded 4 feet. Other examples of Wellingtonia, Araucaria, Cedrus, &c., might be cited if necessary.

The collection of Agaves and Cacti exhibited in a glass house apart from the Palace is most interesting, and would be even more so if the bare staging upon which the plants are arranged were replaced by masses of rock or turf covered with mosses and Ferns or choice trailing plants, among which the quaint succulent forms could be plunged and arranged to the greatest advantage, gaining immensely in appearance when so managed, and losing all of the present harsh effect.—EDWARD LUCKHURST.

### THE CARNATION.

There are three modes by which the Carnation can be increased—namely, by seed, by layers, and by pipings. The first is practised with a view of obtaining new and improved varieties, and the other modes to propagate them when obtained. The seed should be saved only from double-flowering varieties, or those that are nearly so, for a perfectly double flower cannot produce seed. The seed pods will be shorter and the seeds fewer from such flowers than from single flowers: hence it is very valuable. Gather it as soon as it is ripe, and keep it dry and cool through the winter. Sow in boxes in March placed under glass, or in a warm border in April. Transplant the seedlings 3 inches apart on a bed enriched with leaf mould or well-decayed hotbed manure as soon as they are large enough, and let them remain on the bed through the succeeding summer and winter, and they will all flower the following season. Mark such as are good, name them, and layer them in the way I shall describe presently.

CHARACTERISTICS.—The following characteristics constitute a good flower:—First, the stem of the flower should be strong and straight, not less than 30 inches nor more than 45 inches in height, and able to support the weight of the flower without hanging down. The flower should at least be 3 inches in diameter. Secondly, the petals should be long, broad, and stiff, easy to expand and make free flowers; the lower or outer circle of petals, commonly called the guard petals, should be particularly substantial; they should rise perpendicularly about half an inch above the calyx, and then turn off gracefully in a horizontal direction, supporting the interior petals, which should decrease gradually in size as they approach the centre, and with them the centre should be well filled. All the petals should be regularly disposed, and lie over each other in such a manner; they should be nearly flat, or with only a small degree of inflection at the broad end; their edges should be perfectly entire without notch, fringe, or indenture; the calyx should be at least an inch in length, sufficiently strong at the top to keep the basis of the petals in a close and circular body, and the middle of the flower should

not rise too high above the other part. Thirdly, the colour should be bright and equally marked all over, the flower perfectly distinct, the stripes regular, and the outline of the flower should be round and perfectly smooth.

**SOIL.**—This is a very important matter, for without good soil it is in vain to expect good show flowers. Old garden soil is not at all suitable, but fresh virgin loam is absolutely necessary. It must be looked for in an upland pasture, and the upper stratum, about 8 inches thick, is the best. Add to this about one-fourth of two-year-old well-decomposed cow dung and the same quantity of leaf mould. A small quantity of finely-sifted old lime rubbish will be found useful to mix with it; this keeps the soil sweet and open. This compost previously to being used should be put into a place where it will gradually become moderately dry.

Carnations, Picotees, and Pinks, in order to produce perfect flowers, must be young plants raised every year. The mode of layering a Carnation is well known to every gardener, but I may say that I do not approve of the old method of shortening the leaves, for I consider the cutting-off a portion of the leaf is injurious, and hinders the layer from rooting so soon as it otherwise would if the leaves were left entire. I have proved this repeatedly. Trim off the lower leaves on every shoot before commencing to layer, because when a layer is tongued it is easily broken off. The layers when prepared should always be pegged into fresh soil and have a slight watering, with further supplies if the weather is dry. They will be rooted in about a month or six weeks.

Propagation may also be effected by pipings where there is the convenience of a gentle hotbed; it is, however, not so safe as layering. When there are more shoots than can be layered, and it is desired to propagate largely, take them off and cut off the lowest pair of leaves, and pass the knife just through the joint. Prepare a pot by draining and filling it with the proper compost up to within an inch of the top, and complete with silver sand; water it gently to make it firm, and then insert the pipings all round close to the pot's sides, placing them in a gentle hotbed, and shading from the sun.

—J. H., *Gardener to Lady G. Legges.*

#### ESTIMATE OF NEW AND RECENT ROSES.

**BARONNE DE BONSETTIN** is splendid, a fine erect grower; the flower very thick in petal, and if grown with care—that is to say, shaded in sunny weather—is almost unequalled amongst dark Roses. **Captaine Lamure** is a Rose for high-class growers. It requires heavy manuring and a little guano, when it produces blooms most pleasing and distinct and of very fine form. **Dupuy-Jamain** is a fine free-flowering garden Rose, an improvement on **Madame Crapelet**. **Etienne Levet** is the best of the rose colours, being, in fact, a carmine **Charles Lefebvre**, and cannot be too highly recommended. **François Michelon** is good. **Louis Van Houtte** is the finest (take it all round) dark Rose we have; it requires high culture and close pruning. **President Thiers**, a crimson **Victor Verdier**, is very bright and pleasing, but not full enough. **Annie Laxton** is not particularly good, but might be bought if the grower has plenty of room. **Bessie Johnson** is very middling.

**Madame Lacharme** is a bad Rose. The great want is still a good white Rose, and growers are tempted to buy all sorts of rubbish in the hope of something turning out good. This Rose has caused great disappointment. **Mlle. Marie Cointet** is very pretty, in the way of **Marguerite de St. Amand**; it is of lovely shape, but rather small. **S. B. Hole** is a splendid Rose. This, **Louis V. Houtte**, and **Xavier Olibo** vie with one another. **S. Reynolds Hole** is the best grower and thickest in the petal. It would, I should say, make a good climber, as it seems to throw long shoots before blooming. It is very fine, and must be in every collection. **The Shah** is a light red Duke of Edinburgh, very bright, but it struck me as being rather thin.

**Wilson Saunders** is truly grand, being a scarlet **Charles Lefebvre**. It looks like a cross between that variety and **Lord Clyde**. It is a splendid grower, and one of the finest Roses yet produced. **Caroline Kuster** is good, in the way of **Céline Forestier**. **Belle Lyonnaise**, a lemon-coloured **Gloire de Dijon**, should be in every collection; also **Madame Berard**, of the same class, but inclining more towards **Madame Faloot**. **Cheshunt Hybrid**, a very free-blooming red Tea, is a novelty and very pleasing. **Madame Denis** is good. **Marie Van Houtte** is one of the most beautiful Teas we have. **Catherine Mermet** is also one of the finest Roses lately brought out.

The following list may be useful to some of your readers, being the cream of the Rose world. All are first-rate. **Alfred Colomb**, **Baronne de Bonsettin**, **Baroness Rothschild**, **Camille Bernardin**, **Captaine Lamure**, **Charles Lefebvre**, **Countess of Oxford**, **Dupuy-Jamain**, **Dr. Andry**, **Duke of Edinburgh**, **Edward Morren**, **Etienne Levet**, **François Louvat**, **François Michelon**, **Général Jacqueminot**, **Horace Vernet**, **John Hopper**, **La France**, **Leopold I.**, **Lord Clyde**, **Louis V. Houtte**, **Madame C. Joigneaux**, **Madame H. Jamain**, **Madame Noman**, **Madame Vidot**, **Mlle. E. Verdier**; **Marie Bady**, **Marie Baumann**, and **Sénateur Vaisse**, the three best light red Roses; **Marquise de Castellane**, **Olivier Delhomme**, **Paul Neron**, **Pierre Notting**, **Président Thiers**, **Prince O. de Rohan**, **Vicomte Vigier**, **Victor Verdier**, **Xavier Olibo**, **Annie Laxton**, **Marie Cointet**, **Reynolds Hole**, **The Shah**, **Wilson Saunders**.

Tea Roses depend so much on situation and the care and capability of the grower, that I only add a short list. All are tolerably hardy, but Tea Roses require protection in the winter. They do best either on the Briar or as pot Roses. **Céline Forestier**, **Maréchal Niel** (south wall), **Alba Roses**, **Belle Lyonnaise**, **Catherine Mermet**, **Devoniensis** and **Climbing Devoniensis**, **Gloire de Dijon**, **Madame Berard**, **Madame Bravy**, **Madame Denis**, **Madame Faloot**, **Madame Margottin**, **Madame Willermoz**, **Marie Van Houtte**, **Niphetos**, **President**, **Bubens**, **Souvenir d'Elise**, and **Souvenir d'un Ami**. There are several others worth growing, but they are rather the rich man's fancy. Any grower who will buy the above list, and take care of them, need trouble his head about nothing else.—**AN OLD ROSE-GROWER.**

#### AN OLD GARDENER'S ADVICE TO YOUNG MEN.

HAVING been forty years a gardener, and during that time associating with men of every class, I will here state that I have never known a wise, respectable, able gardener fail to rise to a respectable position, or fail to gain the respect of his employers and neighbours. Merits, like murder, will out. Great talents and ability cannot be hid. Popularity is almost always the reward of humble well-directed efforts and good conduct. A passion to learn and a determination to let nothing else come before a knowledge of gardening, are prime qualifications in beginners.

Education is necessary to success. We know very well that men can dig and plant Cabbages, make Vine borders and grow Grapes, without an "Education Act" or much book culture; but still, more education would help them in many ways, and make them more agreeable and eligible servants. Some twenty-five years ago a young man came under me as second gardener. His address was not very good. He was urged to study "Cobbett's Grammar." He obtained a copy of this work, and during the winter nights he read it by the stovehole fire, for he had no better. Before he finished his career as a journeyman he had sent some creditable contributions to the horticultural press. He now holds one of the highest and most lucrative situations that can be found in England. His own industry and respectability have raised him to the aristocracy of gardening.

Let me urge all young gardeners to spend the long evenings of winter in the pursuit of education and a thorough knowledge of the science of gardening. A single winter of study properly directed will raise young men high above their fellow workmen who spend their evenings in gossip and folly. Gardeners have so much to learn that they have no time for frivolity, and young men in commencing a career of gardening should make themselves acquainted with the thoughts of our best men who have written, and those who still write, on the practice and theory of gardening, natural philosophy, vegetable physiology, heat, light, chemistry, &c. Alphabets and catechisms on these subjects can be bought for a few pence. Strange it is that so many gardeners are content to travel at an easy pace along the road to mediocrity. Let young men remember that real, good, able, and accomplished gardeners are scarce. If a situation worth 20s. or 24s. a week becomes vacant, how many applicants there are for it! but if one at £100 or £120 a year presents itself, how few dare venture to apply for it! It is a great advantage to a man to possess cultured manners. Such manners never disqualify men of common sense for the wear and tear of rough work, and I have ever found young men of good manners and education rise faster and higher than those without them.

In taking situations gardeners should resolve to serve their

employers to the uttermost of their ability. To be good servants in every sense is the shortest road to gain the confidence and admiration of employers. To do right is the way to be happy. No one need fear that his virtues will not be found out or appreciated. Employers are well able to estimate a servant's character and worth. Taet, temper, and a disposition to serve are estimable qualities. With these and even a moderate share of ability gardeners will not fail to satisfy their employers, who seldom complain without occasion, and often abstain from complaining when there is occasion for it. If a gentleman should see anything wrong, why should he not mention it? And if he does mention it, why should the gardener unwisely retaliate by the use of immoderate language? Calm reason is always more effective than extravagant passion.

In the duties of life mistakes are often made, and, what is worse, are attempted to be hidden. The very confession of a mistake made in a transparent manner is an honourable trait in any man's character; and he who has the courage, prompted by a sense of right, to frankly admit an error is sure to win confidence, and in the end success. Be careful in forming friendships and social connections. In this matter much caution is needed, as an improper connection, or a connection formed at an improper time, is almost more than anything else calculated to mar the prospects of a man whose professional attainments and diligence would otherwise eventually secure him an honourable position in life.—A. PATTICREW.

### GROWING LARGE STRAWBERRIES.

My reply to a correspondent on this matter is that, in order to grow anything large, whether Strawberries, Grapes, or Pumpkins, the stock must be had from a vigorous strain to begin with. That is a point of the first importance, and one that is not so fully recognised as, with advantage, it might be. The next condition is, that to produce extraordinary specimens of a given fruit the soil and locality must be naturally suited for the growth of that fruit, and to this must be added the best assistance that art can give.

The Strawberries alluded to were the produce of one-year-old plants. Early runners were taken from the plants of exceptional vigour, and layered in pots in May; these were potted into 5-inch pots in June, and generously treated for forcing. They were so fine that a portion were repotted into 8-inch pots on August 1st, and were well tended. They were eventually planted out in strong rich soil 3 feet deep, and regularly watered with sewage. The fruit was thinned-out, and the crop was remarkably fine.

Early runners layered in pots and generously cultivated invariably produce larger fruit the first season than is produced from two-year-old plants. The fruit from one-year plants is, however, not so numerous, and the gross weight of the crop may not be so great as the crop of the second year.—F. G.

### HALF AN HOUR AT CYFARTHFA CASTLE.

CYFARTHFA CASTLE, the seat of R. T. Crawshaw, Esq., is within a few minutes' walk of the centre of Merthyr Tydvil, overlooking one of the largest iron works in South Wales, where the air is black with soot and smoke by day, and by night of a continuous red glare from the flames of its multitude of forge chimneys; yet here amidst so much that is detrimental to fruit-growing Grapes are grown by the ton. This is no exaggeration, for we found in one house upwards of seven hundred bunches of Canon Hall Muscat, grand in bunch and berry, and of that rich golden yellow that speaks truthfully of high flavour. If we only put them down at 2 lbs. each, though the greater part would be double that weight, we would have in this house alone more than half a ton.

In another house Gros Guillaume at once struck the eye, with its leviathan bunches; not one here and another there, but all the way up the rods and all over the end of the house. There are twelve Vines, I think, of it; these bunches would weigh 5 lbs. on an average, and only require a few days' more sun to finish them off perfectly. Since then (the first week in September) we have had beautiful weather here in the north; in fact, September has been the only fine summer month we have had. In another house Madresfield Court was equally fine, but the greater part was cut. Black Hamburg was all cut, with the exception of a few odd bunches, which just showed what they had been—beautifully bloomed, hammered, and coloured.

In a span-roofed Fig house the Figs are planted out in a

centre bed, and grown in gigantic bushes 9 or 10 feet high by as much through; these are ripening their second crop. On each side of this house, the pots standing on a narrow stage, were pot Vines trained over the pathway, one side containing those for next year's fruiting, and the others in fruit, each Vine carrying from 16 lbs. to 20 lbs. of Grapes. Eight bunches were the rule, and a regular rule it was, for there was little to choose in any of them, and as black as they could be for a thick covering of bloom. The chief variety was Alcantara, and, judging from results, there is no better one for pot culture. In a smallinery we passed through was a rod of Duke of Buccleuch, which did not at all look promising, and was thought little of at Cyfarthfa.

Pines are grown very extensively, there being upwards of three thousand plants in various stages of growth, a hundred ripe Pine Apples being required for every Christmas. One pit upward of 100 feet long was filled with odd plants which threw up between the main lots here, and my guide said, "We can cut a Pine any day of the year." They certainly looked like it, for there were Pines in all stages of fruiting from showing to ripe.

Stone fruit was nearly all gathered, just a few late Peaches and Nectarines only being left, but the foliage and wood looked quite able to rank as high as the Grapes in their season. It is, however, impossible to do justice to all in the short time that I had to look round this little town of glass structures.

There are eleven vineries, some of them very large, four Pine stoves, nine succession Pine pits, Fig house, three large Peach houses, two Peach cases 300 feet each, Apricot cases same length, and Melon pits.

But fruit is not all that is grown at Cyfarthfa, for at a little distance from the fruit houses, nearer the Castle were the plant houses, five in number, with pits hot and cold. The plant houses are roomy span-roof structures. The intermediate house is very lofty and large, containing tree Ferns, Palms, &c., one very fine *Latania borbonica* being as much as four men could move. In the stove are very large plants of *Crotons variegatus* and *angustifolius* 8 feet through and as much in height, *Alcacia macrorrhiza variegata* some 12 inches round the stem and the foliage large and beautifully variegated, *Bougainvillea glabra* bract stems 18 inches long, *Allamanda* and *Stephanotis* in equally fine condition; but I was a little too late to see this department at its best, the plants having returned from the last show of the season about a fortnight before. If Mr. Crawshaw should allow them to extend their showing radius we shall hear more of Cyfarthfa, its fruit and plants. In the New Holland house was *Erica Massoni* major in rude health and full of flower, and a pair of very fine *Yuccas*. But it struck me the large specimen *Erica*, &c., were old, and their places will be better filled in a year or two by the younger specimens on the side shelves.

But to do justice to Cyfarthfa would require both more time and a better pen than mine. However, a slight idea will have been given of the good things to be found in this out-of-the-way yet well-managed place.—T. W.

### BEES AND PEACHES.

WHEN a few weeks ago I saw it stated in the Journal that bees devoured Peaches I smiled incredulously, and said to myself "That is clearly a mistake, and you must look elsewhere for the robbers." When I state that for thirty years I have been a Peach-grower in places abounding with bees, and that I have never seen a Peach touched by them, you will, I trust, admit that I had reason on the side of my mistrust; but, alas! the awakening.

In the beginning of this year I went to a new situation, where Peaches had not hitherto been much cultivated. Peach-growing is one of my specialities, and I had a beautiful crop, of which I was very proud. One day a swarm of bees alighted in my garden. I made inquiries but failed to find an owner; so, having hived them, I kept them. I am sorry to say they have turned and stung the hand which saved them, and that, too, in its most vulnerable part. Last week I found that my prized crop of Peaches was ruined, and I had to take them off for preserving, or whatever else use could be made of the halves which were left. They were literally worried, and as I swept the bees off they fell to the ground helpless, completely surfeited, and unable to fly from the place. The destruction was little less complete than the destruction I afterwards made of the bees, and I guarantee that it is the last hive which will find a resting-place in my garden. I



send you this my experience in the hope that it may prevent others being the victims of their own overweening confidence, as I have been.—J. R. R.

[The bees were starving owing to the bad honey season. Had they been fed with a few pounds of sugar and water they would not have attacked the fruit.—Eds.]

### ROSES.

A LADY after visiting Mr. Cooling's Rose nursery states, "The best new Roses I have seen are Captain Christy, Etienne Levet, Louis Van Houtte, Maxime de la Rochetiere, Claude Levet, Marquise de Castellane, Marquise de Mortemart, and Marie Van Houtte (Tee)." She is an excellent judge, and lived here at Okeford Fitzpaine some years. The selection is very good. Marquise de Mortemart is lovely, but a weak grower. Marie Van Houtte I do not possess. All the rest are here and deserve the lady's praise. These are good new Roses and have done well—St. George, Souvenir de John Gould Veitch, John Harrison, and Theodore Buchetet; these are all high-coloured Roses and of great excellence in my judgment. These are excellent garden Roses—namely, Pierre Seletzsky and Hortense Mignard. Olga Mariz is a pretty white Rose in the way of Baronne de Maynard, but it is not so efflorescent nor so perpetual a bloomer. The Countess of Oxford is fine, and may be added to those named by the lady. The Roses here have done well. Since I have been a rosarian I never had them finer than they were here about June 10th.

The metropolitan shows are too late for any but possessors of large stocks of Roses or persons who bud largely. A good working rosarian, of whom I believe there are but few, ought to have his Roses in full bloom by June 10th. By ten or fifteen days later the centre buds should be mainly out and gone. The corollary buds are of no use for exhibition.—W. F. BANCROFT, Okeford Fitzpaine, Dorset.

### PACKING FRUIT AND CUT FLOWERS.

THERE are few gardens where some packing is not occasionally done, and in numerous instances it occurs so frequently as to be a rather formidable affair, consuming a good deal of time and material: it is important, therefore, that the best way of doing the work should be clearly understood. It is undoubtedly a simple matter, and yet it must be granted that it is one in which it is most desirable to excel; and I hope it will not be considered egotistical on my part if I state that quite as much pleasure has been felt upon being informed of the satisfactory condition of such soft fruits as ripe Peaches and Nectarines after a journey of eight hundred miles as in winning a well-contested prize at a flower show.

Fruit is packed in a variety of ways. Grapes, for example, are frequently sent considerable distances in perfect safety without the use of any special packing materials, the bunches being laid together as closely as possible with a little wadding at top and bottom. Attempts are also made to preserve the bloom by laying the bunches in open boxes and baskets, which are made to fit into other boxes. But it is neither a very successful nor safe plan; much rubbing is inevitable from the vibration of the train, and there is great risk of the Grapes being thrown out of the interior boxes and smashed in transit.

The plan which has proved perfectly successful, and which is now invariably followed whenever fruit is sent by rail, is to wrap each bunch of Grapes or fruit of other kinds in soft tissue paper, surrounding it with a slight padding of sweet bran as the fruit is placed side by side in a box. The paper is put upon the fruit in plain folds, and not twisted into hard corners, which may press into the next fruit and spoil it. Much care is taken to have each fruit thoroughly enveloped in bran, which is also settled into as compact a mass as possible by slightly jarring each box upon the packing bench after the top layer is put in, and when it is quite full a sheet of paper is put upon the bran and the hinged lid closed by hooks and eyelets of copper wire, and securely corded.

If this excellent old method is only done correctly all risk of failure is avoided. I have therefore entered minutely into details in order to assist those who, like me, have had failures, and which they are, of course, most desirous to remedy in future.

Cut flowers should be packed in a perfectly dry condition, and whatever packing materials are used should also be dry. Considerable quantities are sent in boxes by rail to distances varying from fifty to nearly three hundred miles in the follow-

ing manner with perfect success:—The bottom and sides of the box is lined with spray and Fern fronds; upon that at the bottom is placed a compact layer of buds and such flowers as will not suffer from a little pressure; then comes another layer with the more delicate flowers enveloped singly in a thin piece of wadding, all packed closely. This is followed by a sheet of silver paper, upon which a third and last layer of padded flowers is placed. A thin sheet of soft wadding is placed upon the top, and the lid fastened in the same manner as the fruit boxes.—EDWARD LUCKHURST.

### DIONÆA MUSCIPULA.

CARNIVOROUS plants have latterly received more than an ordinary share of attention. They are curiosities of the vegetable world, and have been the subjects of considerable research

Fig. 65.—*Dionæa muscipula*.

by botanists and philosophers. They are undoubtedly interesting, and some of them are highly attractive. They are also of comparatively easy culture, and anyone possessing a greenhouse may, with a little care, succeed in growing *Dionæa muscipula*. It is a native of Carolina, North America, where it grows in marshes or bogs. The soil best suited for it is sandy peat, with a little finely-chopped sphagnum moss. After being put into small pots a slight covering of live moss should be laid on the surface. They should be then placed on a shelf in an ordinary greenhouse exposed to the full force of the sun. As they require a good deal of water, a layer of moss should be placed on the shelf and the pots slightly plunged in it, which is preferable to placing them in flats of water; as in this manner the soil is not so apt to sour. When the leaves begin to decay withhold the water, but never let them dry-up entirely.

The *Dionæa* is propagated by seed, which it produces readily

if when in flower the pollen is slightly rubbed on the stigma with a small brush. Raising from seed is a slow process, but a very interesting one. The seedlings come up quite freely, but they are a long time before they attain any size. In the youngest state, however, they are quite as sensitive as the old plants.

As to their peculiarities. If a fly or piece of meat is put on the leaf it closes on it, and does not open until it is thoroughly digested, which for an ordinary fly takes eight days; in the case of the meat, when the leaf opens there is not a particle left behind; but if a piece of wood or any hard substance be put in, the leaf closes, but next morning it will be found wide open again. I have been feeding a number of them, but I cannot say that they are much the better for it as yet; however, it is just possible it may make them stronger next year.—R. L.

### INTERNATIONAL POTATO EXHIBITION, ALEXANDRA PALACE.—SEPTEMBER 29TH.

CONSIDERING the importance of the Potato as a staple article of food, it is not surprising that a fair share of encouragement should be given for the best examples of culture. At all horticultural exhibitions the section devoted to Potatoes invariably secures more than an ordinary share of public attention, and which fully warranted the institution of a special exhibition of the tuber. The season has generally been favourable to the growth of the Potato, and the disease has been much less virulent than in some previous years, therefore it was only natural to expect that a good response would be made for the liberal prizes offered on this occasion.

The object of the Exhibition is a laudable one, it being, as the prospectus informs us, established for the encouragement of the best methods of Potato culture, and the introduction and diffusion of improved varieties. The Exhibition being under the distinguished patronage of city dignitaries, and having an Executive Committee of singularly practical men, with a hard-working Secretary, at once secured public confidence, and the gathering was anticipated with a considerable amount of interest throughout the country. The schedule was divided into fourteen classes, and so arranged that the best varieties, home and foreign, should be brought into competition, and their relative merits be judged by comparison. Besides the prizes immediately offered by the promoters, the Alexandra Palace Company liberally subscribed £20 in four awards in addition to a silver cup value £10 to the winner of the first prize. Messrs. Sutton & Sons, Reading, offered prizes amounting to £10 10s. including a silver cup. Messrs. James Carter & Co., Holborn, offered a like amount and cup for six English and six American varieties; and Messrs. Hooper & Co., Covent Garden, offered prizes of similar value for American varieties. Messrs. Bliss and Sons, New York, also provided good prizes for three new American varieties, and Mr. John Coutts, James Street, Covent Garden, for three English seedling varieties.

The Exhibition was held in the Concert Hall, the dishes being arranged on five long tables of convenient height, and the display was a great and imposing one. It was no easy matter to judge so many collections of nearly equal merit. Owing to this, and the system adopted, the awards were not made until long after the admission of the public, and the usual crowding and impatience resulted.

For prizes offered by the Alexandra Palace Company for twenty-four varieties of nine tubers each there were sixteen competitors. Mr. R. Dean, Ealing, secured the first prize and ten-guinea cup with a collection of high quality. Some of the tubers were fully large, but all were excellent examples of their kinds. The most handsome dishes were those of the varieties of Mr. Fenn—viz., Onwards, Rector of Woodstock, Early Market, and International Kidney, very fine; the remainder were American and staple English sorts. Mr. Pink, Lees Court, was second; Mr. Jacob, Petworth, third; and Messrs. Cox Brothers, Gosberton, fourth.

For twelve varieties (nineteen competitors) Mr. Fenn secured the first place with an admirable collection, smooth and of a correct size for table use; they were varieties of his own raising, and as productions of one man probably unequalled. Second Mr. Pink, gardener to Lord Sondes; third Mr. R. Farquhar, Fyvie Castle; fourth Mr. Miles, Wycombe Abbey. For six varieties (twenty-four competitors) Mr. Porter, Old Meldrum, N.B., won the first place with a beautiful collection, Excelsior and Snowdrop being perfect dishes; Mr. Bates, Kingsbury, had the second place; and Mr. McKinlay third. For six varieties (kidney-shaped) there were thirteen competitors. These collections were very superior. The first prize was secured by Mr. Denyer, Beckenham, for admirable dishes; second honours going to Mr. Woods, Clipstone Park, Mansfield; and third to Mr. R. Dean. For six varieties (Round) were nine competitors. The produce in this class was not of high merit. A second prize was awarded to Mr. Woods, Clipstone Park; and third to Mr. Fin-

lay, Wroxton Abbey. The first prize appeared to have been withheld.

For the best dish of nine tubers of any White Round variety thirty-five competed. Mr. W. Porter, King Street, Old Meldrum, N.B., secured the first place with a grand dish of Excelsior, Mr. Potts being second, and Mr. Lye, gardener, Clyffe Hall, third; an extra prize being awarded to Mr. Bennett, Enville, Stourbridge, for an excellent dish of Schoolmaster. For the best dish of any coloured variety thirty-one competed. The first prize going to Mr. Potts, gardener to Viscount Gage, Fife Park, for Vermont Beauty, very large; second, Mr. Sexton, Thornington Hall, Ipswich, for Red-skin Snowball; and third, Mr. Hudson, Vandyke Court, Pershore, for "Princess of Lorne;" all too large. For the best dish of White Kidney Potatoes thirty-one competed. Mr. W. Smith, Petworth, was placed first for handsome unnamed tubers; Mr. Miller, gardens, North Down, Margate, being second; Mr. W. Finlay, Wroxton Abbey, third; an extra prize being awarded to Mr. Montgomery, Sillington Manor. These dishes contained tubers of immense size, and not at all suitable for table use. For the best dish of any coloured Kidney variety thirty-five competed. The first place was easily won by Mr. Peter McKinlay, Beckenham, for perfect examples of Salmon Kidney; Mr. Henry Sexton being second; Mr. Miller, Hampstead Park, Banbury, third; and Mr. Potts, gardener to Viscount Gage, fourth. The varieties mainly exhibited were large examples of the American Rose.

Messrs. SUTTON & SONS' PRIZES for twelve varieties, distinct, brought eighteen exhibitors, the collections being very superior. Mr. Donaldson, gardener to the Earl of Kintore, won the first prize and cup. In this collection Fenn's Bountiful was in a most perfect state, as were Veitch's Ashleaf, Porter's Excelsior, like Snowflake; Early King, Jersey Blue, Carter's Main Crop, and Breese's Prolific. The tubers were like wax models. Finer examples of culture were perhaps never seen. Mr. Potts, gardener to Viscount Gage, was second; Mr. Fenn, Woodstock, third.

Messrs. CARTER & CO.'S PRIZES for twelve varieties, six American and six English sorts. This was a very fine display. There were fourteen competitors. Mr. McKinlay had the first prize and silver cup with a bright clean collection; second Mr. James Betteridge, Chipping Norton; third Mr. H. Minchin, Hook Norton.

Messrs. HOOPER & SON'S PRIZES for nine varieties of American Potatoes, seven competitors. Mr. Peter McKinlay, Beckenham, won first and cup with large but clean and good examples; Messrs. Cox, Bros., Gosberton, being placed second; and Mr. Pink, gardener to Lord Sondes, third. The collections were very showy and attractive.

For Messrs. BLISS & SONS' PRIZES for three American varieties introduced to England in 1874-5 there were six competitors. Mr. R. Dean had the first place with Snowflake, Vermont Beauty, and Early Gem, all of great size and quality; Mr. Pink, gardener to Lord Sondes, Lees Court, being placed second; and Mr. Ross, gardener to C. Eyre, Esq., Welford Park, third.

For the prizes offered by Mr. John Coutts for three varieties of English seedling Potatoes there were ten competitors. Mr. Fenn, Woodstock, had the first award with splendid dishes of W. F. Radclyffe, Woodstock Kidney, and International Kidney; Mr. E. Bennett, School House, Enville, Stourbridge, being placed second; and Mr. R. Dean, Ealing, third. In this collection Dean's "First Early" was very fine.

Miscellaneous collections of considerable interest were staged. Messrs. Carter & Co. had a large display of seventy varieties of Potatoes, Beets, Marrows, and a splendid brace of Cucumber Tender and True. Messrs. Harrison & Sons, Leicester, exhibited sixty varieties of Potatoes of staple kinds. Messrs. J. & O. Lee, Hammersmith, had also a great and good display in a like number of varieties. Mr. Shirley Hibbard staged fifty varieties; Messrs. Bliss, New York, six new American sorts; and Messrs. Hooper & Co., Covent Garden, exhibited six unnamed seedlings of good appearance. From the Metropolitan Schools came ten dishes of tubers weighing 80 lbs. Mr. Fenn, Woodstock, exhibited twelve varieties of his seedlings of great beauty and correct table size. Noticeable amongst these were dishes of a second-early Round variety (certificated), also Early English Rose, and the fine dark Kidney Bountiful, which had been dug up in July, 1874, and which had kept in a wonderfully sound state.

Mr. B. S. Williams, Holloway, exhibited an interesting collection of decorative plants. The Exhibition was a very successful one.

BETTERIDGE'S QUILLED ASTERS.—We have received from Messrs. James Carter & Co. a box of the above Asters, which for distinct and varied colours and perfect form of the flowers it would be difficult to excel. Each bloom is semi-globular in shape, smooth, and exceedingly full of florets, having an elegant fringe of guard petals. The self-colours are white, lilac, violet, crimson, with intermediate shades; the bi-colours have

distinct white centres surrounded with bands of violet and crimson. These are excellent examples of an admirable strain.

### A USEFUL GARDEN BROOM.

THE best broom that has come under my notice for sweeping lawns and gravel drives is one that is very much used in this locality. One man can do more with one of these brooms than two can with the old garden besom, and it can be made by any garden labourer. I will describe, for the benefit of those who may not have seen them, the way they are made.

In the first place procure a strong handle about 5 feet long, and saw it down the middle the same way that the haymaking rakes are made. The forks should be about 18 inches long, and be pressed open about 6 inches wide at the points. Now take two pieces of light wood about an inch square, and place one on each side at the points of the tines. Next put two nails sufficiently long to reach through both cross pieces and the tines, then put a nail through each end of the cross pieces, and that will keep all in its place. This frame will last for many years, and all that will be required will be to replace the old twigs of birch with new twigs as they are wanted.

It will be easily understood that the twigs are to be placed between the two cross pieces, and be tied firmly, as the work proceeds, to the framework. The brooms can be made light or heavy, according to the work they have to do. It would want making a little heavier for sweeping-up grass mowings. It is an excellent tool for that purpose, and cannot be beaten. When completed the broom is the shape of a fan.—H.

### BOURNEMOUTH, ITS SCENERY AND VEGETATION.—No. 2.

In my last communication I noted some of the characteristics of this district. I will now take a survey of the Rhododendrons, which in some of the older enclosures have been planted rather extensively and are doing well. The public garden in the valley is well furnished with them. Several beds of the choicest kinds had been planted, and as care was taken to furnish them with more of the peaty substance than the site they were planted on afforded, I expect when flowering time comes round they will be found gay, and at the same time robust as well. I may add that in the planting of the park or garden alluded to care had also been taken to introduce trees and shrubs with variegated foliage, and those who know how well the *Acer negundo variegata* comes out under such circumstances can judge how well it was doing here. Mixed with or standing partly in front of other shrubs, its light airy appearance casts a charm about it which the other surroundings did much to set off. A variegated Dogwood was also used now and then to the same effect. Less sparingly, because more slow in growth, was the Golden and Silver-edged Hollies, both of which, however, as well as the other kinds, were planted in various places, and now and then a very nice Holly hedge was met with, of the value and beauty of which it is needless to descant.

Trees are not numerous. On a fully exposed bluff next to the sea I noticed *Pinus Picea* doing pretty well, much better than *Cupressus Lawsoniana*, which does not seem suited for the very edge of the coast, although it was thriving remarkably well a short way inland. Other trees at half a mile from the water, and sheltered by the friendly Scotch Fir, were also doing well; notably so was *Cedrus deodara* and a very promising *Cupressus macrocarpa* or *Lambertiana*, while I was told the *Wellingtonia* only did well for a short time and then seemed to go off. More promising seemed the somewhat capricious *Cryptomeria japonica*, which in places looked all that could be wished for, while in others it was yellow and sickly and evidently not at home. Deciduous trees were but poorly represented; in fact, their absence would seem to deprive the district of that appearance of autumn which they so forcibly call to mind elsewhere. I think such trees ought to predominate, but in the case before us this cannot well be for some years at least. Scotch Firs are there, and may either be made use of or destroyed, and the man would be very reckless who destroyed a tree of fifty years' growth to plant one that is uncertain to grow; and as we all know that Nature favours the growth of deciduous trees in districts where they are likely to grow, we may rest assured that if Elm, Ash,

Beech, Oak and the like had a liking for a soil and situation that has not evidently benefited much by cultivation until the commencement of the present century they would have been there, but as it is they are only conspicuous by their absence.

One tree I was, however, glad to see had been introduced with good effect, and that was the Birch, and that, too, in a place where it is but seldom met with—viz., the graveyard, and one yielding to none that I am acquainted with for beauty of site and copious adornment, not in architectural design, but in trees and shrubs, the sculptural embellishment being less imposing but always good; in fact I believe I am speaking within bounds when I say that nine-tenths of them were white marble, and that there were at least half a dozen fairly grown trees for one tombstone. Most of the graves are neatly ornamented with flowers, some growing, others in a cut state and frequently replaced, suitable paths winding amongst them; and with the white marble crosses and low kerbstones of the same material surrounding the sacred spot, the whole exempt from the soot and other polluting influences common in large towns, presented to view a charm not easily forgotten. The church, which occupied a platform at the bottom, had a good breadth of close-shaven lawn unoccupied all around it, the whole having that air of repose becoming a place of the kind. I noticed the Birch tree had been judiciously planted and was doing well, also the sombre hues of the Scotch Fir were not wanting to give appropriate effect to the enclosure. Other trees had also been planted and were doing well.

It will hardly be expected that other shrubs and trees not mentioned above were not to be met with in a place where wealth abounds and so much is done for outward display, for common and Portugal Laurels met one at every corner, yet not in so vigorous a condition as to indicate they were quite at home. *Laurustinus* were better, yet not so good as I have met with them elsewhere, and I do not remember seeing a good specimen of Sweet Bay, but *Cotoneasters* were quite at home, and ran over banks in the manner peculiar to themselves. *Escallonia macrantha* seemed also to do remarkably well, flowering with all the vigour of a *Fuchsia*; and I may add, when there seemed depth of soil, the *Fuchsia* did well also. The pretty fruiting *Pernettya mucronata* seemed to thrive like a weed, as also did one or two *Eunonymuses*, but they were more sparingly planted than I expected. The same may be said of *Ruscus aculeatus* and *R. racemosus*; the latter, by-the-by, I have never seen in robust growth anywhere, and looked for it in the mild climate of the south coast. The different species of cultivated Heaths could not do otherwise than look well where the wild one is so common, and double *Furze* I was told invariably did well, which might be expected when the common one is met with wild in so many places. *Berberis Fortunii* and *aquifolium* cropped-up frequently, but neither so good as is often met with; but Box, including the *Balearica* species, was in good force, and the ever-recurring Broom, than which, perhaps, nothing presents a brighter tint when in flower, was to be met with on the banks and steep slopes running down to salt water, vying in that respect with the *Tamarisk* and wild Heath in its capability of withstanding the spray; while one plant that seemed the most prominent on the north-western coast was scarcely to be met with here—that was the Willow. In fact, at Bournemouth deciduous trees seemed less patronised than they merit. The same may be said, in a great measure, of deciduous-flowering shrubs; for although occasional specimens might now and then be seen, their numbers as compared with their evergreen brethren were few indeed.

I have said that most of the buildings were of two or more coloured kinds of brick enriched in every manner the material is capable of, and great diversity can be made with these materials; and as each house was usually seated amongst trees and shrubs, creepers against the building had in most cases been dispensed with, and properly too; but now and then we could see that trelliswork as screens were more or less covered with *Clematis*, Ivy, Roses, and the like, the first-named of which seemed to do remarkably well, and on more than one occasion it might be seen rambling over the ground in rich profusion of flower. Flower beds of the fashionable class were frequently met with, but these were more under the form of a border margining the approach to the residence, as the anxiety for a plot of plain turf seemed so great that small beds were not much met with. *Geraniums*, *Verbenas*, and especially *Lobelias*, were duly represented; and with the ever-present (there as well as elsewhere) *Golden Pyrethrum* a good display was kept up. In the nursery of Mr. Enoch White on the Holdenhurst

road I noticed about a dozen varieties of Clematis in pots, trained balloon fashion and loaded with bloom, that would have been highly admired at a London show; while a look into the glass structures which crowded at the back and around the house disclosed a quantity of plants of all kinds, exotic and hardy, flowering and foliage, hardwooded and succulent, and in fact all that a wealthy community like that of a fashionable watering place are likely to require both for indoor embellishment and outdoor display, and those only who cater for the public wants in such places know what is really required.—J. ROSSON.

### VINES MILDEWED AND THEIR RENOVATION.

A CORRESPONDENT ("B. & W.") has sought for information under the above circumstances. We forwarded his letter to an able Grape-grower who had been similarly afflicted, and who succeeded in eradicating the mildew and procuring heavy crops of Grapes. The following is his reply, which contains practical matter which is generally applicable at this period of the year.

It is unfortunately too clear that the Vines have been overtaken by the destructive oidium, and that the attack has been a most virulent one. If the Vines have developed new foliage, and the wood is fairly strong and showing signs of ripening, the Vines may be preserved and future crops hoped for; but if the wood is weakly and soft, and the foliage small and lacking substance, then we must advise a renewal of Vines and borders. In the first case proceed as follows: When the foliage has fallen prune the Vines and thoroughly wash every portion of them and every portion of the house—wood, walls, and floor—with a solution of soft soap of a strength of at least a quarter of a pound to the gallon of water, using it at a temperature of 140°, which will destroy all fungus germs and leave the house clean. Next remove the surface soil from the border, carefully baring the roots (but not injuring them with the fork or permitting them to become dry by exposure), and replace with the best turfy loam that can be obtained mixed with inch bones or charred refuse, or both, and surface the whole with 6 inches of good stable manure. If in the spring heating material is at command to again cover the border, raising its surface to 90°, it will facilitate the emission of roots into the fresh soil, and the old Vines will become new again—that is, if new rods are gradually trained up. The fermenting material is not an absolute necessity, but is an immense aid, when carefully managed, in renovating old Vines by assisting the roots into fresh soil.

In the next case, if the Vines are extremely injured remove them and the border too, and plant new canes. The border being well drained, therefore simply make an exchange of soil, taking out the old and bringing in fresh loam. But perhaps this cannot be easily obtained, and in that case take the first draw of garden soil and mix with each cartload two or three bushels of inch bones, and of this make the border. Do this at once before the soil becomes cold and wet, and in the spring plant new Vines, and mulch over their roots with good manure. If the ordinary soil of the garden is such as grows fruit trees and vegetables well, rest assured that with bones added liberally and rich surface-dressings, it will, other points in culture being correct, produce satisfactory Grapes, and equal, in all probability, to what would be obtained by an expensive importation of turfy loam. Charred material, such as rubbish, thoroughly burnt, and soil scorched, is a valuable addition to any Vine compost, and such a heap can generally be scraped together in most gardens in the autumn.

A point of the first moment is that the border site be well drained, and of equal importance is it that the soil be put together in a moderately dry state, and before it has become cold by winter exposure. Neglect of these two points cannot be compensated for by any loam however turfy. If put together in a proper state, ordinary sound garden soil which will produce good crops of Pears and Potatoes will also produce good Grapes, and the Vines may be kept healthy for an indefinite time by frequently top-dressing the border with fresh soil, bones, and manure.

### NOTES AND GLEANINGS.

We have lately seen in London some remarkably fine examples of POND'S SEEDLING PLUM. Taking them indiscriminately, five of these fruit exceeded a pound in weight, and their average size was 8 inches in circumference. On

inquiry we found that these Plums had been grown by Mr. Beaulah, farmer, Brackenhills, Brigg, Lincolnshire, whom we know to be not only a good farmer but a successful cultivator of fruit and an able aparian. Mr. Beaulah has grown Pond's Seedling Plum 9 inches in circumference, and last year his young standard tree produced 14 stones weight (14 lbs. to the stone) of fruit. The fruit was of excellent quality. The synonyms of this Plum are Fonthill and Pond's Purple. In colour it is a fine dark red with grey dots, and is a valuable variety.

As a successful example of amateur GRAPE-GROWING, we give an instance of a vinery attached to a farmer's residence. The house is span-roofed, 27 feet in length, and 16 feet in width. The roof area is 486 feet. This roof has lately carried 400 bunches of Grapes, principally Black Hamburgs, varying in weight from  $\frac{1}{2}$  lb. to  $2\frac{1}{2}$  lbs. each. The berries were fine and well coloured. Of these Grapes the owner sold, beyond what he required for his own use, upwards of 200 lbs., and realised more than sufficient to pay his fuel bill and other expenses of management. The soil he used was sound turfy loam and bones, and to this was added heavy top-dressings of manure and copious supplies of water.

We have received from Mr. Burry, Gray's Inn, Warwick Court, Holborn, a remarkably fine specimen of the GIANT PUFF-BALL (*Lycoperdon giganteum*), measuring 16 inches in height and 44 inches in circumference. It was grown in a meadow near Bungay in Suffolk. It is edible when fresh, but the fine example sent us shows signs of decay.

### VINES DESTROYED BY WIREWORM.

HENCE we have at present date a plain and complete token of their power of destruction. Three vineries which were erected here in the autumn and winter of 1873 are almost a complete failure. The soil was procured from good old pasture-land, rather of a heavy nature, and slightly impregnated with iron; it was carted into the borders in a rough state, there chopped and mixed with lime, rubbish, bones, &c. The Vines were procured from a good source, planted, and when started looked all right; but it was not long ere they told that something was materially wrong—the growth stood still, foliage turned yellow, and for a time we were puzzled to know the cause; but on examining the soil there was no mistaking that wireworms were the cause, for every root was, or in the process of being, eaten. Around the collar of the stems were plenty of strong roots pushing for existence, but on the points of these they were busy feeding. What was to be done? Try and trap. This was tried partially, still they increased. Autumn brought a better growth—some canes fair, others deficient, some a failure. This spring we forked over the soil, destroyed what we saw of the enemy, and added some fresh soil; result this season even worse than last, the borders are completely swarming, and have all but destroyed the entire lot. The question now is, What is to be done? Can the present soil be cleared of them, and if so by what means? I have tried them in many sorts of poisons, but they seem to live as well in them as out. I would say to those who don't believe that wireworm eats or in any way destroys Vines, that they will be greatly enlightened by coming ere long and seeing them as busy at the roots as boys would be in a good bed of Strawberries.—JOHN GRAY, *Eglinton Castle*.—(*The Gardener*.)

### OUR BORDER FLOWERS—LUNGWORTS.

At least two of this family of early-spring and summer bloomers are said to be natives of England, but I cannot vouch for the accuracy of the statement. I am in doubt about their nationality, and look on them as only being naturalised on our island. However, be that as it may, we find them thoroughly at home with us, enlivening our spring gardens and borders with their cheerful presence and many-coloured flowers, and in some instances with their beautiful leaves.

What power there is in the language of flowers! I have, and no doubt others too, had the pleasure of seeing the languid eyes of an afflicted one lighted up with joy when a few flowers have unexpectedly been brought. With what emotion have the words burst forth from the lips of the suffering one, "How beautiful, how delightful, how delicious the perfume!"

Among flowers so welcomed are Lungworts. They are a very accommodating family; they will succeed in any moderately good garden soil and a rather shady situation, but will

bear full sunshine. *Pulmonaria officinalis* is in many gardens, but ought to be in all. Many years ago I saw this plant on a gravel hill among Nut trees in the month of April, the flowers peeping above the grass in profusion; I have not seen the like since. They are quite at home in what is termed "wilderness scenery," and are equally adapted for the rockery or any spot in the garden.

I have had *Pulmonaria siberica* and *Pulmonaria virginica*, but could discover no difference except in the name. The flowers are a dark blue, the leaves a dusky brown; it is one of the finest border plants we possess. When well established it is a gem of the first water, and makes a capital pot plant; it is useful for all purposes, and is increased by division, but it requires time to work up a stock.

*P. angustifolia*, *P. denticulata*, and *P. paniculata* are desirable plants when in bloom with their two-coloured flowers, beautiful leaves, dwarf habits, and long continuance in bloom. No plants at the season can be more effective. *P. mollis* and its white variety deserve far more extensive cultivation than they are at present receiving. *P. grandiflora* is a fine kind, and is of somewhat taller habit than many of the species.

A selection from this family are very effective when nicely put together. Some years ago I had a plant called *Pulmonaria nepalensis*; I had the same plant under the name of *Symphytum caucasicum*. Such variations of name cause confusion. The plant is one of our very best border plants. It grows 2 feet high. The flowers are a pretty blue and very enduring. It is increased by seed and division after flowering. It should have a place in all collections.—*VERITAS*.

#### LADY'S MANTLE.

In the month of June our fields and lanes are dressed in their gayest attire; I mean with flowers of various hues, for turn our attention whatever way we may we are compelled to see flowers here, there, and everywhere. What can delight us more than a stroll through the meadows and along our by-ways in the cool of our summer evenings, especially after a shower, to revive our parched earth, and cheer our senses by the effusion of a thousand sweets? While we gaze on the many beautiful flowers which deck our pathway, our attention is arrested by a lovely plant at our feet bearing the title at the head of this note. *Alchemilla vulgaris* is not brilliant in the colour of its flowers, but there is something attracting in its large beautiful leaves, and it might be made available as a border plant. The *Alchemillas* are but a small family of plants, and having three or four we call ours they become, at least to me, the more interesting. I believe if they were better known we should see them more frequently in our borders and rockeries. These remarks are prompted chiefly from a love of our native flowers, for many of them are equally at home under cultivation as in their native habitat. They may be successfully cultivated in moderately dry situations in good strong loam mixed with limestone grit, and some of the kinds do not object to sandy peat; they should have thorough drainage. They may be increased by division and seed, with full exposure.

*Alchemilla alpina* is said to be a native of Britain, and few plants present to our view a more beautiful silvery white appearance than this Alpine Lady's Mantle. It ought to be seen on every rockery and in all herbaceous borders. We sometimes see *Alchemilla alpina* and *A. conjuncta* confused together, but when seen side by side they are quite distinct. I find them useful as edging plants in contrast with others; their lovely foliage bathed in dew under the rays of the early morning sun has a very pleasing effect. There are shades of difference in the appearance of their foliage, but *A. alpina*, *A. pubescens*, *A. conjuncta*, and *A. pentaphylla* are the most desirable. For some of the family we are indebted to the Caucasus and Switzerland, while some are indigenous to "our own loved land."—*VERITAS*.

#### GRAPES AT THE EDINBURGH SHOW.

WITH regard to Mr. Dickson's statement in your issue of last week (page 270), I do not think that Judges have anything to do with the weight of a bunch of Grapes when cut from the Vine; it is the weight when staged in the show-room that they must go by. It would certainly have been a strange proceeding to have re-weighed the Grapes after they had remained two days and two nights in the show-room. As for being more than one bunch, I think the character and position of the gentlemen who acted as Judges is a sufficient guarantee

that there was nothing wrong on that score, especially as when lifting the Grapes off the boards and weighing them they had ample opportunity to inspect them. I regret that any unpleasantness should have arisen from the great gathering we had at Edinburgh.—*JOHN CURROB, Eskbank.*

It appears from a letter in your Journal of the 23rd inst. that Mr. Dickson, Arkleton, feels disappointed at the defeat he met with when competing for the prize for the heaviest bunch of Grapes at the Great Show in Edinburgh on the 15th inst. He appears to have, for months past, been living in the belief that all he had to do was just to go to Edinburgh, lay down his bunch, and take the prize. Most people will be of opinion that it would have been more prudent of Mr. Dickson to have pocketed the defeat and to have said nothing about it. His letter is apt to produce the impression (whether intended I cannot say) that the Judges cannot correctly weigh a bunch of Grapes, and that they do not even know what a bunch of Grapes is. The public, to whom Mr. Dickson appeals, will be very slow to suppose and believe that the evidence of the two parties who saw the bunch weighed before it left Arkleton should have guided the Judges in coming to a decision as to who was entitled to receive the prize, and not the evidence of their own eyes and senses. This is an opinion that cannot be entertained.

The two bunches were weighed in the same room, on the same weights, by the same gentlemen, and before dozens of witnesses all looking on and checking the weights. Evidence like this should satisfy any reasonable man. Did Mr. Dickson weigh his bunch of Grapes on the morning after the Show, and did he find it more or less weight than the Judges made it?

As to what a bunch of Grapes is, the bunch from Eskbank was a much more compact, more beautiful, and better-shaped bunch than the one from Arkleton; the latter appeared rather to have a number of long arms or string of bunches, somewhat more like a shot Cauliflower than a good neat bunch of Grapes. The heaviest bunch was the finest variety also; and it was certainly not the opinion of persons well qualified to judge Grapes, and who saw both bunches at the Show, that the berries on the lesser were better than those on the larger bunch, but quite the reverse.—*D. E.*

MR. DICKSON would like to "hear the opinion of two or three able men who are not interested in either of the bunches" as to the fairness of the award for the heaviest bunch.

I am certainly not "interested," and am "able" to say that the weighing was conducted in the most transparently fair manner, for I watched the operation closely. The Eskbank bunch was not only the heaviest, but it was the most compact and staged in the best condition. The Arkleton bunch was much rubbed and appeared to have received injury in transit, which spoiled the appearance of the berries. The berries of both bunches were very good. That, however, is not the question, weight alone being the point at issue; and on this point I cannot see how the award can be reasonably called in question.

Both the bunches appeared to be fairly grown; and while I am not surprised at Mr. Dickson's disappointment, I am surprised to hear that "half a dozen principal Grape-growers and prizetakers at the Show" should consider the compact Eskbank bunch to be "two bunches." What does this mean?—*AN ENGLISH GRAPE-GROWER.*

#### VIOLAS FOR SUMMER BEDDING.

VIOLAS have long found a place in masses in our spring gardening, but it is only of late years that their capabilities and merits in summer and autumn flower gardening have been recognised and tested. There is not a doubt but Violas, like most other plants, succeed best in certain localities, and under certain peculiarities of soil and climate. Still, from what we have observed for several years past, we are of opinion that in nine cases out of ten they are not properly cultivated, and that in many instances where their blooming period is cut short by drought and hot sun it is because they are not treated in a manner that enables them to compete with adverse climatal conditions.

To make Violas bloom continuously throughout the summer, in the drier localities of the country, the ground should be as deeply worked and as effectively manured as a quarter that is intended to grow fine summer Cauliflower. Even in the wettest localities, rich deep soil is a condition under which

they are most satisfactory and effective. And so effective and continuous are they as plants for massing in summer, that we know of no other class that will yield the same solidity and profusion of colour and bloom.

The way to develop their capabilities to perfection is very simple, and places them within the reach and enjoyment of all who can command hand-glasses or cold frames, and ordinary garden soil and manure. For summer and autumn blooming the cuttings should not be put in too early. The character of the early cuttings is never such as produce free-growing and continuous-flowering plants. The very end of September or early in October is the best time to propagate. Then is the time that under the influence of cool moist nights they produce plenty of young healthy shoots near the necks or bottoms of the old plants. These small healthy growths that have never formed nor produced a bloom bud are the cuttings that root the most freely, winter with least care, and ever afterwards do the best, and bloom the freest and longest. It is undesirable to put in long cuttings with a shank and a dangling top. Two joints in the ground and two out of it is quite sufficient. They should be made in a cool shady place, and put in the frames and watered and shaded without being once allowed to droop. Any ordinary light garden soil will root them, but a mixture of about equal portions of loam, leaf mould, and river sand is best; and 5 inches of this soil, resting on a rather firm bottom, to prevent their sending down their roots deeply, and from which they can be removed in spring with a ball and all their roots, is preferable to a great depth of rich open soil. Kept close, rather moist, and shaded from bright sun, they root with scarcely one per cent. of misses, and get well established before winter sets in. Plenty of air after they root is indispensable; and a slight covering over the glass in very severe weather is about all the attention they require till planted in spring where they are to bloom.

As can be gathered from what has already been said, the soil in which they are to bloom should be deep and rich; and under such treatment few plants are so effective for the same length of time, and at the same expenditure of time and labour. The end of March or beginning of April is a good time to plant out, according to the season and state of the weather. They should be lifted with all the soil possible adhering to their roots; and if the weather be dry at planting time give them a good soaking of water, after which they generally take care of themselves.

The new varieties of these sent out yearly are numerous, and we have tested a very great number, and selected comparatively few. The most effective violet-coloured one that has been tried is *Viola cornuta* Perfection: nothing of the same colour that has been tried approaches this one for genuine usefulness and effect. It is alike suitable for large beds and scroll-work. It is a compact upright grower, and requires to be planted thickly. The best purplish blues tried are *The Tory*, *Charles Dickens*, and *Alpha*. Of yellows the two we grow most of are *Perpetual Yellow* and *Yellow Gem*. The former is the most wonderful plant to bloom we have ever seen. It blooms all winter in the cutting frame, and blooms until the snow covers it up next winter in the beds. As a pale lavender *Lilacina* is most thought of; and among whites, *Purity* is probably the best of a great number tested: a good white has yet to be raised.

The effect of these in masses and long lines is very striking. For filling the old Egyptian scroll to be met with in many gardens—when the centre circles are filled either with *Alyssum* or some golden-leaved *Geranium*, and the S's with *Viola cornuta* Perfection, and the outer part of the design with *Tropaeolum Cooperii*—the effect is charming.

A panelled border on a large scale, with a massive groundwork of *Viola Tory*, with panels of variegated *Dactylis*, having a small specimen of variegated *Acer* in the centre of each panel, with two or three lines of *Viola Perpetual Yellow* next the bluish-purple groundwork of *Tory*, and a margin line of *Viola Perfection*, is very effective, particularly in the evening. As a mixed bed few combinations are more chastely beautiful than one planted plant about of *Polemonium caeruleum* variegatum—a plant not nearly so much grown as it should be—and *Viola Perfection*. The variegated *Periwinkle*, young plants, and *Viola Tory*, are also very effective planted in the same way as the *Polemonium* and *Perfection*.

A groundwork of *V. Perfection*, with margin lines of gold, and panels of white *Stock* or *Centaurea ragulina*, makes a very sweet combination; many other combinations of hardy and easily-raised plants, such as those instanced, can be carried

out at half the expense and labour required for those that have to be raised in heat, and that do not last in bloom above half the length of time.

Mr Gray, Eglinton Castle Gardens, has succeeded in raising some purple, yellow, and white varieties, which, both for habit and general effect, are superior to any yet in cultivation, and we hope they will soon be distributed.—D. T.—(*The Gardener*.)

## NOTES ON VILLA AND SUBURBAN GARDENING.

**ROOT-STORING.**—We have now arrived at the beginning of October, a month rather busy in the matter of taking-up, collecting, and storing the various crops of the garden. Most if not all root crops appear to be fairly advanced towards the condition for housing. Fine weather should always be chosen for the above work. I do not like the soil to be in a sodden state when a crop, such as Carrots for instance, is taken out of it; neither are these crops in such a fit condition for keeping when much wet succeeds a period of fine weather, such as we have just had. The roots under these conditions take-up too much moisture for long keeping, and it requires a longer period to have them thoroughly dry before packing away; therefore, as the weather is at present threatening, it would be well to take-up Carrots, Beet, Potatoes, and Onions. Parsnips, take-up as wanted, but leave the general crop in the ground. Salsafy and Jerusalem Artichokes may also remain in the ground and be taken-up later in the season.

All roots should be judiciously thinned before storing. I like to cut the tops off Carrots and Beet at two different times: first, when taken up the tops are cut half down, but after they have been under cover and become dry the tops of the Carrots are cut close off, and those of the Beetroots to within 2 inches of the root. The points of neither are touched. I have often found that if a Carrot begins to rot it does so quite as often when it is cut at the point as it does at the top. Beetroot is generally one of the best of keepers under the usual conditions. Generally speaking roots have nothing but makeshift places in which to be packed away—either too damp or where there is not sufficient protection from frost, or the material in which they are packed is of the wrong sort. It should be thoroughly dry, and not liable to go soon to decay. Clean dry sand is, perhaps, the best of all, but coal ashes are the worst. I have kept roots well in chopped straw when sand could not be had. They are put on a layer of this at the bottom, and upon boards to keep clear from the ground, then the chopped straw in about 8 or 9-inch lengths is laid crosswise to the roots. In all cases the roots are laid-up root and point alternately, and if in a cool but not too dry a place they remain plump through the whole winter. The object of having the straw short is, that it can be easier laid-in, and again can be easily removed a little at the time as the produce is taken away, and during the winter months when the roots require to be looked over the work can be done much quicker and cleaner.

It is sometimes necessary during winter to protect from frost by some sort of covering. Now this should be moved and replaced as often as the severity of the frost comes and goes. I mean that if a sudden thaw succeeds a frost the covering should be removed, otherwise it is apt to bring on a kind of sweat, simply from the sudden extremes of temperature, which is almost certain to generate decay. Again, if the roots are packed in sand or dry earth it should be in the house or under cover, and free from any contact with moisture; and when once a sufficient quantity is collected in the house it is not well for it to be taken out again except for the purpose of cleaning or drying afresh, when it will last some years with trifling additions. I have stated this because many persons have a difficulty in obtaining sand, which gardeners as a rule can get plenty of.—THOMAS RECORD.

## DUNEEVAN,

THE RESIDENCE OF J. MONTOSH, ESQ.

A FORTY-MINUTES run by train from the metropolis will in almost any direction take the visitor to some delightful country spot, which by its proverbial salubrity, its pure air and agreeable natural landscape is selected by the affluent—city merchants and retired professional men—as affording scope for isolated and more or less pretentious country residences. Such a place would Walton-on-Thames appear to be and the district surrounding. The traveller who alights at Walton station on the London and North-Western Railway is at once satisfied that he is clearly beyond the land of cockneyism. The scene savours of quiet country sweetness, and is, in fact, "truly rural."

The aspect is a woody one, and the ground is undulated. The roadsides are flanked by masses of verdant Oaks and Elms, and the distant hills, or rather knolls, are topped with



sombre masses and clumps of Firs. In the foreground are Ferns, and Brambles, and Heath. The soil is sandy and the site dry. In the clearances—the open fields—are sufficient trees left as single specimens to add to the beauty of the neat cottages and more imposing mansions which stud the landscape—prominent objects in a leafy framing. I need not tell of the trees by the way—the glossy Chestnuts and the graceful Beeches, or the brilliant glimpses of Pelargoniums which shine through the fences of cherished gardens bounding the road to Ostlands Park. My object is to find Duneevan and see what is to be seen in the garden of a garden-lover, and to tell other garden-lovers something of what Mr. McIntosh has done to make the surroundings of his home attractive and enjoyable.

Duneevan is about a mile from the railway station. "Turn to the left," said the porter, "then take the second turn to the right, then the first turn to the right again, and you will see Mr. McIntosh's white lodge on the left." Ah, three rights again, history repeating itself, thought I, and the Walton porter is as clear as the Balham butcher's boy. I had no occasion to ask another question, for I found the white lodge with ease. Mr. McIntosh's mansion is a white brick building with stone dressings, which contrast well with the fine Beeches and Conifers on the lawn of the little carriage frontage. Faultlessly clean and neat is the outside, but let me first tell of my greeting inside. It was a queenly one—i.e., a bouquet of Roses.

This bouquet demands a note. In the centre of the room is a circular table, and in the centre of the table a slender glass vase with one solitary bloom of Gloire de Dijon; around this is a circle of other vases and other Roses, and beyond this other circles until the edge of the table is reached, the vases decreasing in height from the centre, those of the outer edge being tiny gems of 2 inches in height. This table of 280 blooms in separate glasses is a truly regal bouquet of Roses; as one bloom decays it is replaced by another, so that this table of Roses is lastingly sweet and beautiful.

Now let us look outside. The garden front has a north aspect. Close to the house is a terrace, on which are arranged the flower beds. But this terrace is not a dainty, formal, artificial work of art; it is a bold bank which Nature has formed, and sweeps down in precipitous and wavy undulations to the grounds below. It is not descended by artfully-hewn stone steps, but by natural curving walks is the lower ground reached. This ground is beautiful both by disposition, keeping, and the decorative subjects employed. It is a lawn of bold undulations and of perfect keeping, so perfect that not a Dandelion or even a Daisy is permitted to exist on its not inconsiderable surface. It is dotted with trees of noble growth. There is the venerable Oak with a girth of stem of 23 feet, Larch 80 feet, and towering immensely higher is the graceful Birch with silvery stem, and in the autumn is of golden fountain-like contour. The Birch associated with Conifers is one of the most ornamentally effective of forest trees. Here, too, are some noteworthy Conifers; but few finer and more perfect Wellingtonias can be found than one specimen of 40 feet in height, but it is dwarfed in comparison with a fine old Cedar of Lebanon. Smaller, but of their kinds still more noticeable, are *Cupressus Lawsoniana argentea*, 10 feet high by 8 feet at the base, and *C. Lawsoniana gracilis* is 14 feet by 10. Of *Abies Albertiana* is a splendid pyramid of 25 feet, of rich colour and extreme elegance. *Araucaria imbricata* and *Cedrus deodara* are also fine, with many others which must be passed over. But I must not pass over, lengthy as is its name, one of the finest plants extant of one of the finest of lawn Conifers—viz., *Cupressus Lawsoniana erecta viridis*. It was planted in 1867, and is a dense imposing column 15 feet high by 4 feet in diameter. Why is not this handsome variety more freely grown? It must be because it is not sufficiently known. Both in habit and in its brilliant green colour it is one of the most distinct and attractive plants of this family, and ought to spread far and wide. Besides these are elegant examples of *Cryptomerias* and the best of the *Retinosporas*, a grand plant of *Picea magnifica* 15 feet high, with many other choice and well-grown Conifers. These are planted on the smoothest of smooth lawns.

Another main feature of this beautiful garden are the Rhododendrons. The collection of these is rich and extensive, every new variety being added, and the whole collection carefully and correctly named. These plants grow with extraordinary vigour, and are tended with skill and care. They are planted in thousands on banks and in beds of various forms, thought-

fully disposed with a view to increasing the general effect of the grounds. These beds must be grand in June, but they are grand now and throughout the summer, and this brings me to what is a remarkable sight.

I had heard that Mr. McIntosh had *Lilium auratum* growing in the open ground 11 feet high, and that some clumps of four stems had 130 blooms. I have now seen that this is really so. This grand *Lilium* is at home here. It is grown by hundreds and in extraordinary luxuriance. The bulbs are planted near the front of the Rhododendron beds about 9 feet apart, and between each a standard Rose. The huge light blooms of the Lilies lift their noble heads out of the rich green beds, and fill the air with fragrance. The bulbs were planted 6 inches deep, and there they remain from year to year without any protection from frost. The bulb which has produced the kingly spike of 11 feet was planted in 1870. This bulb has thrown up two spikes, the shortest being 9 feet, and the pair are carrying twenty-three blooms. It is a noble growth of a noble Lily. Another single stem may be noticed as carrying twenty-four grand blooms, most of them being 14 inches in diameter, the circumference of the stem of the plant being 3½ inches. In another part of the grounds are less tall but magnificent clumps, one of which has, or had until recently (for they are fading now) 180 expanded blooms, and on three clumps together were 250 of these glorious flowers. Some idea of their effect is afforded by the engraving, fig. 66, where the figure of Mr. McIntosh is included to give a relative idea of the size of the plants, but which, however, are dwarf in comparison with others in the grounds. They vary, indeed, in height, size of bloom, and colour, some being suffused with crimson, while others are paler. The natural soil is sandy loam with an admixture of peat on a sandy subsoil. These plants are well supplied with water, but no liquid manure is given them for fear of injuring the valuable Rhododendrons amongst which they are planted. They are supported by galvanised wire stakes, which are made in lengths with sockets, so that they can be lengthened as the plants increase in height. These beds are disposed in different parts of the lawn, and the whole of them are planted with these fine Liliiums. The front of this garden is bounded by a fine and spacious stream of water—the Broadwater—and along this stream is a straight walk, having on one side a lawn sloping to the water and ornamentally planted, and on the other a large raised bank of Rhododendrons. This walk, which approached 100 yards in length, is also fringed with Liliiums, and at one end a walk conduits to the upper ground through perfect bowers of foliage. This, though not a large garden, teems with fine plants and fine features, and it is kept in the highest possible state. The Liliiums bloom from July to November.

The flower garden at Duneevan is also particularly gay. The centre bed is *Coleus* banded with *Centaurea* and edged with *Alternantheras*, and this is flanked by large beds of Pelargoniums. There are splendid beds of Indian Yellow, which is still one of the best bedders; Lord Palmerston, Amy Hogg, and Lady C. Grosvenor. The edgings to these beds of Ivy-leaved Pelargonium *L'Elegante* are better than is commonly seen of that delicate grower. There are also beds of *P. Amaranth*, very effective; *Corsair*, excellent; *Rev. T. F. Fenn*, intensely bright; *Rev. C. P. Peach*, and *Miss Saunders*. The double blue *Lobelia* used as an edging plant is also in fine condition. A small conservatory is attached to the residence, and which is now gay with well-grown standard *Fuchsias*, &c. There are two vinerias which the gardener, Mr. Taylor, has managed very well. A new kitchen garden has been made, the land costing nearly £1000 an acre, and a good collection of fruit trees is being established, some of them bearing enormous crops of fruit. The soil is light and sandy, and the pasture lands are burning up, yet the garden crops are healthy and vigorous, thanks to full supplies of sewage, which is wisely preserved and freely used. This is altogether a charming garden, not provided, as the owner says, that he should "eat its fruits and grumble," but is thoroughly enjoyed as a principal means of healthy employment. Mr. McIntosh has good reason to enjoy such a place, and his gardener is to be complimented on its excellent management.

An interesting fact must not be omitted. Mr. McIntosh is a lover of birds (not in cages), and the confidence existing between his feathered friends and himself is very striking. Robins fly out of the bushes, and not only feed from his hands, but alight on his beard and pick the crumbs from his mouth. It is most interesting to witness these friendly birds (or perhaps it may be the same bird which I saw do it over and over



again in different parts of the grounds) fly up and take the crumbs from the mouth of their friend and preserver, and alight and eat them on the lawn. What patience and training on the part of Mr. McIntosh! but then, what a reward!—W.

#### A VISIT TO ARKLETON.—No. 1.

At a time when more than a common amount of interest is evinced in Grape culture, and especially in the production of the leviathan bunches which have lately startled the horticultural world, a brief record of a visit to Arkleton—the home of some of the most extraordinary Grapes on record—cannot fail to possess a measure of interest.

I am indebted for my Arkleton visit, which was a September one, to the kindness of a Scottish laird—W. E. Malcolm, Esq., of Burnfoot, under whose hospitable roof I spent a few memorable days. Shall I say a word about Burnfoot? It is a charming spot situated on the banks of the foaming, tum-

I name this as an honour to a man whom success has not spoiled, and as a lesson which almost every instance of success teaches—that he who wins must work.

Arkleton is the residence of John Jardine, Esq., situated in one of the most picturesque parts of Eskdale, about five miles from Langholm, and about 500 feet above the level of the Solway. The grounds and gardens were planned by Mr. Little, of the firm of Messrs. Little & Ballantyne of Carlisle, and were executed by the present gardener, Mr. Dickson, in the years 1863 and 1864. The subsoil is gravel; indeed, when Mr. Dickson entered on his duties the greater part of the kitchen garden was little more than a gravel bed. As a rule fruit trees thrive well here; very few standards are grown, but the walls are covered (both inside and outside the garden) with a very good selection of Pears, Plums, Cherries, and Apples, and healthier and better-looking wall trees are seldom to be met with.

The vineries consist of two houses (Shaw's patent), each

Fig. 97.—BUNCH OF STRIAN GRAPES AT ARKLETON.

bling, rollicking Esk. The mansion is sheltered by trees which would be fine but for the majestic hills on every side, which make trees look small and men feel puny. In the gardens Roses grow with great luxuriance, Gladioli possess extreme vigour, and the *Calceolaria amplexicaulis* I have never seen excelled. The healthfulness of the plants named is doubtless a consequence of the heavy rainfall of the district, so heavy that Wheat cannot be grown to advantage. In the garden also were excellent crops of fruit, and very good Grapes. But although the grounds are delightful and the garden well managed, no attempts are made to produce anything beyond the daily requirements of the household. Mr. Malcolm therefore, to supplement the ordinary culture of his own garden, afforded me the convenience of his stable to see the extraordinary Grapes of Arkleton; for this I publicly record my acknowledgments, and I will now endeavour to describe what I saw. I saw not a great place of aristocratic mein, but a snug, small, unimposing home of a retired country gentleman. I saw not an extensive and sumptuous garden with a superintendent having unlimited means and men at command to carry out his every wish, but a plain square enclosure of about an acre, and the man who has grown some of the most extraordinary Grapes in the world digging-up old Cantharoid stalks.

30 feet long; the Vines are planted inside, but there is an outside border as well. Each of the borders are 14½ feet wide—that is, the houses are 14½ feet in width, and the outside border the same. Mr. Dickson is a great advocate for inch bones mixed with fine fibry loam; of this compost he gives the Vines a liberal top-dressing every year, and during the growing season he gives the borders liberal waterings of liquid manure water taken from a tank in the farmyard. He never allows the Vines to make any growth beyond what he considers proper for keeping them in a good healthy condition. He generally leaves three leaves beyond the bunch, and keeps them at that, going over them perhaps once a-week, taking off all unnecessary growth. After the fruit is all out from the Vines he gives the borders a good soaking of water, not thinking it good for them to be kept so dry as many people keep them at that stage; indeed, he believes that they should never become very dry, and that Vines require more water than is commonly supposed. The borders never have a covering of any kind, although an average of 64 inches of rain falls in the year. This year there has been no semblance of thrips, red spider, nor any other disease to which Vines are subject.

The Vine that carried the bunch of 25 lbs. 15 ozs. when weighed in Edinburgh, but which Mr. Dickson states weighed

26 lbs. 8 ozs. when cut, has only been planted four years; it was grown from an eye taken from an old Vine which had produced very large bunches. The second year it was planted a bunch was cut from it that weighed 14 lbs.; the third year one which weighed 16 lbs. 6 ozs.; and this year the same as given above. The exact measurement of the Vine from bottom to top is 20 feet. The wood of this year's growth is  $2\frac{1}{2}$  inches in circumference, the old wood being  $5\frac{1}{2}$  inches in circumference, and a few of the leaves measure 21 inches by 18 inches, and are extremely thick and leathery.

Such is a brief unvarnished history of a now-celebrated Vine. As seen hanging the huge bunch presented an extraordinary sight. The stem was an honest stem—of that there could be no doubt. It was as smooth, clear, thick, and almost as hard as a walking-stick. Its ponderous shoulders were tied straight out, and measured across them 2 feet 3 inches; the length of the bunch was also 2 feet 3 inches, and its circumference, following the contour of the shoulders to the body of the bunch, precisely 8 feet. The accompanying illustration, fig. 67, from a photograph taken when the bunch was hanging on the Vine, gives as faithful an idea as is to be obtained of this remarkable example of Grape culture. The berries of the bunch were of a full size—indeed, Mr. Dickson had paid too much attention to quality of berry, and certainly sacrificed many ounces in weight by so freely thinning; they hung loosely, and were as large as berries of Syrian usually are on medium-sized bunches. The Vine was only permitted to perfect that one bunch. A neighbouring bunch of the same sort measured 2 feet 8 inches in length and 1 foot 7 inches in diameter; Alicante, 1 foot 8 inches across by 1 foot 8 inches long, another bunch being 1 foot 6 inches by 1 foot 6 inches; Black Hamburg was 1 foot 8 inches across and 1 foot 2 inches in length; and Mrs. Pince's Black Muscat and Black Prince 16 inches by 16 inches. Such are a few of the measurements, and now for a list of the weights of some bunches of Syrian which have been produced; and although they are not individually the heaviest on record, they are as a series probably unequalled in the annals of Grape culture.

In the year 1869, at the Edinburgh International Exhibition, the first prize was awarded to a bunch weighing 16 $\frac{1}{2}$  lbs.; in 1870 the first-prize bunch at the Royal Caledonian Society's Show weighed 19 lbs. 5 ozs.; in 1871 the first-prize bunch at the same Society's Show weighed 18 lbs. 7 ozs.; in 1872 the first-prize bunch at Glasgow weighed 19 lbs. 6 ozs.; in 1873 at Manchester the prize bunch weighed 16 lbs. 1 oz.; and in the same year another bunch at Glasgow weighed 16 lbs. 10 ozs.; then came the bunch of the present year, weighing (by the Judges) 25 lbs. 15 ozs.

Is not that an achievement without a parallel? and would not a commemorative medal be worthily bestowed for such an example of skill? The few pounds won in money have no doubt been useful to a plain hard-working man, but should he not have something tangible to hand down to his children? and would the patrons of horticulture, by enabling him to do so, be doing anything more than simple justice both to the science they represent and to the man who has so well brought out its resources in the important branch of Grape production? It may be replied that others have done well also. Well, let them be honoured too. Many there are who do infinite honour to the craft in a less sensational but not less worthy manner, who cannot bring their works before the multitude, and are never heard of, but who plod on in honourable obscurity; but when their works are seen let them have a reward.

In addition to the vineries there is at Arkleton a Peach house 180 feet long, with a drum trellis running along the front, and occupied with fine healthy trees of Peaches, Nectarines, Plums, and Cherries, all of which bear annually fine crops of fruit. In a future communication I will again direct attention to the Vines at Arkleton, noticing the border formation, and search for the causes that have contributed to such great results. Able men have no secrets, and Mr. Dickson not only permitted me to see everything connected with the garden, but generously replied to all questions concerning his mode of culture.—J. W.

EDINBURGH HORTICULTURAL EXHIBITION.—In the report of the Great Flower and Fruit Show at Edinburgh, when mentioning the judging it is said, "For perfect fairness, smoothness, and celerity no system can be better." Yet, in my own case, my gardener sent to the Show four variegated Geraniums. These were marked "first prize," and the prize slip remained

on his card till nearly 2 p.m. of the first day of the Show. It was then taken off, and affixed to the card of a competitor, and no satisfactory reason was given for this alteration.—R. N. S.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

SINCE last writing under this heading we have had copious showers of rain. The ground had become very dry, and all autumn crops were showing the effects of the want of moisture at the roots. We had not been doing much except hoeing and weeding the ground, and we shall now have an opportunity to weed all the walks. This work is always best done after rain. Endive comes in useful for mixed salads in autumn and winter, and for this purpose it must be blanched. The best way is to invert a flower pot over each plant, and as the Endive is used the pots can be removed to other plants, and in this way a succession of it is obtained. The holes in the bottom of the pots must be stopped. Young plants may now be put out for occasional crops.

Potatoes should now be lifted for winter use. When the haulm is quite dead there is no benefit derived from leaving the tubers in the ground. The "curl" was very prevalent on the plants in the fields this year, and it was certainly worst on the part where the Potatoes had been allowed to remain in the ground long after the tubers were ripe. One would fancy that the reverse would be the case, and that the better-ripened and firmer the Potato the stronger would be the plant next season, but in actual practice we do not find it so. There is no doubt but that the "curl" was known half a century ago. McIntosh writing in the "Practical Gardener," a book published in 1828, says, "Such as are intended for seed should not be allowed to become too ripe, as in that case they are more subject to the disease called the 'curl,' which is often very detrimental to the crops." On the farm at Loxford many acres were planted with Dal-mahoy's, the seed tubers of which were some time in the ground after the haulm had died, and the whole of the crop was severely attacked by "curl."

We have been gathering enormous quantities of Scarlet Runner Beans from two rows of about 40 feet in length each. They are a very useful vegetable to us. As we have previously stated, the difficulty we have to obtain anything like decent crops of Peas so late as this is very great. It is not altogether the climate that is in fault with us, the soil is too light; this is in our favour in May, but against us all through the summer and autumn. We saw at Burghley Park, Stamford under the excellent management of Mr. Gilbert, some fine rows of Peas bearing good crops the other day. Mr. Gilbert's plan is to dig out the ground as for Celery trenches, but not quite so deep, the Peas are then sown in the trench in rich soil. Artificial watering was not approved of, but in exceptionally dry seasons it would be well to water the rows, and whatever quantity was applied none would be wasted, as the roots, being lower than the surrounding level, would absorb all the water.

### ORCHARD HOUSE.

All the trees from which the fruit has been gathered have been either *potted* or *top-dressed*. Those trees that were repotted last year have been top-dressed this year. We report every alternate season. When we were accustomed to report in November we found the trees did not set their fruit so well, but since this operation has been performed in September the trees become established before the leaves fall, and the fruit always sets well, at least if it does not do so the fault is not in insufficient root action. We have in previous seasons said that some attention is required to see that the leaves do not flag too much; dewing them with the syringe and keeping the house rather close will prevent any injury. Top-dressing may be done later in the season, but it is just as well to do this at the same time as the potting. It will be a saving of time to have all the work over at one time. Following the practice recommended by Mr. Rivers, malt or kiln dust has been used in former years, but it is not readily obtained here; and as stable manure and turfy loam both pretty well rotted, in the proportion of one of the former to two of the latter, answers equally well or better, we do not trouble to obtain the kiln dust either for summer or winter dressings. It is best if the loam and manure can be mixed and laid up in a heap for two or three months. The way in which the trees are dressed is this:—With an iron prong (the time of a Potato-fork broken off is as good as anything, or a screw-driver answers well), fork-out as much of the surface mould as possible to half the depth of the pot. It is not desirable to work too close to the stem; a space of about 8 inches will be as much as can be obtained in a 15-inch pot. The compost ought to be rammed in rather firmly, because the organic matter decays during the winter. The fresh material is very soon filled with new active rootlets.

### PINERIES.

We find that fruit ripening and others approaching to that

stage does very well in a lower temperature than is usually thought necessary to be maintained in the fruiting house; for instance, in our fruiting house there is also a very heavy crop of Muscat Grapes ripe, and to keep them in good condition it is necessary to air freely night and day. So far the temperature does not fall below 60° at night, but as the nights become colder 55° will be the minimum. Lower than this it is not desirable to go, and with a little management the Pines ripen well and are of excellent flavour. Succession houses require the temperature to be regulated by the state of the plants. One of our houses containing a number of Queens that have made their growth is now kept at a minimum of 60°, and will fall to 55° or even to 50°. As the nights are colder plenty of air is admitted by day, and a drier atmosphere maintained than when the plants were in full growth. This treatment will rest the Pines, and they will be in good condition to start for fruit at Christmas.

Our suckers were potted later this year, as it is intended to pot them again in the spring and to grow them on for fruiting in 1876. For such a purpose it is quite early enough to pot the suckers about the first week in September, further north a week earlier might be as well. If it is intended that suckers of this year should fruit next year, then they ought to be taken off in June or early in July; indeed, some of the best Queens we ever saw were ripened in June from suckers of the previous June. There is no difficulty in doing this. The suckers are potted in 6 and 7-inch pots, and as soon as the pots are filled with roots the plants are repotted into 10 and 11-inch pots, and by the first week in October these will be quite filled with roots, and the plants after a little rest may be started about January the 1st. It will be necessary to maintain a night temperature of 70° with a good rise by day; indeed with sun heat we have had the thermometer to 100° without any injury resulting from it.

#### PLANT STOVE AND ORCHID HOUSE.

One plant of easy culture when its requirements are known is *Disa grandiflora*. It has flowered two years in succession in a small span-roofed house here, and the ventilators have been fully open night and day all the time. The plant is repotted annually about this time; the pots are filled half full of drainage, and over this some fresh sphagnum moss is placed. The compost is turfy peat and fresh sphagnum chopped up; the sphagnum is also encouraged to grow on the surface of the compost, which it will do if the plant is syringed twice daily. Under this treatment and a moist atmosphere the plant will succeed well. The night temperature in winter should be about 45°. In summer, when in full growth, shade from the sun. If the house is facing north so much the better for the plants. The large brilliant crimson flowers that open in July are very striking in appearance. Another very fine Orchid for greenhouse culture is *Cypripedium spectabile*. It requires the same treatment as the other as regards soil, temperature, potting, &c. The flowers are white tinged with pale rose; others are tinged with a deeper rose or crimson. In the stove the *Calanthes* are rapidly approaching the flowering stage, and will be very valuable to us, as flowers are scarce at present. *Bougainvillea spectabilis*, with its beautiful mauve-coloured bracts, should be encouraged to flower in the autumn. It will flower in May or June, and after being rested a little will start again. It is new in flower with us. It is quite as well to let the stove plants have as much sun as possible now. *Orchids*, except *Phalenopsis* and some of the *Cypripediums*, with a few other species, are much benefited by the sun at this time. *Dendrobiums* and *Cattleyas* will flower much and more freely when the pseudo-bulbs are ripened under exposure to the sun. Any young plants of such subjects as *Dipladenias*, *Ixoras*, or, in fact, any hardwooded stove plants, should be encouraged to grow, and, if necessary, they should be repotted. The plants will yet have time to become established in the pots before the dark days of midwinter. An over-moist atmosphere is injurious at this season.

#### FLOWER GARDEN.

The Auriculas have been removed from their quarters under the north wall to a southern aspect. We have potted Carnations and Picotees, two plants in a pot, the strongest in 48's and the rest in 60-sized pots. The Pinks will be planted out as soon as the ground is ready for them. As yet no other bedding-out plants have been propagated except zonal *Pelargoniums* and *Centaureas*; all others will be put in in the course of a week, *Calceolarias* being left to the last.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

JANUARY.—Autumn October 18th, Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.  
LOUGHBOROUGH.—November 15th and 16th. Mr. W. Pallett, 55, Baxtersgate, Sec.

### TRADE CATALOGUES RECEIVED.

Messrs. Hooper & Co., Covent Garden, London.—*Catalogue of Bulbs, Fruits, and Garden Requisites.*

Alfred Legerton, 5, Aldgate, London.—*Wholesale Catalogue of Dutch and other Flower Roots.*

Joseph Schwartz, Rue de Repos, 43, à la Guillotière, Lyon (Rhône).—*Catalogue of Roses.*

John Jeffries & Sons, Cirencester.—*Select List of Dutch Flower Roots.*

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

ADDRESS (H. J. A.).—We cannot state the address of any correspondent who prefers to write anonymously.

PEAR CRACKED (J. Hamilton).—This is caused either by exposure to cutting east winds when the fruit is in its earliest stages of growth and the skin is very tender, or else there is fungoid growth on the fruit; in the latter case the leaves would be also attacked. Sulphur is the only remedy we know for attacks of this nature. It would have to be applied early in the season to do any good. We would mix  $\frac{1}{2}$  lb. of sulphur and 8 ozs. of soft soap in a gallon of rain water, and apply it to the trees with a syringe. We do not say this will effect a cure, but it is worth a trial.

CELERY LEAVES GRUB-EATEN (T. J. B.).—The grubs are the offspring of the Celery Fly, *Tephritis opordordina*. Mr. Westwood suggested that to prevent the grubs the parents might be caught by strings smeared with bird-lime stretched over the Celery rows. Pick off the affected leaves and destroy them; to do so would not be very time-consuming.

DRESSING FOR VINE BORDER (G. G.).—Remove the top soil down to the roots, but without injuring them, and replace with sound turfy loam mixed with inch bones at the rate of 2 bushels of bones to a cartload of soil, and surface the border with a covering of good manure. Do it at once.

BUDDED ROSES (Idem).—Remove the ties at once. We should not stop the shoots which have pushed, but should let them grow, and cut them close in at the winter's pruning; that will also be the proper time to shorten the Briar stems back to the buds.

DAYING COCKSCOMBS (H. G.).—There is no process that we know only to hang them up in a dry warm room, but the combs will not retain their colour as they are too fleshy to dry well.

MYATT'S SEEDLING STRAWBERRY (Idem).—It is a fine late kind, and usually very prolific, doing well in light soils where British Queen does, and is usually known as "Filbert Pine."

CUTTINGS OF *CALCEOLARIAS* (Drake).—By reducing the flowering parts you will further the formation of shoots from the base of the plants, and these or any shoots not showing flower are eligible for cuttings. They should be put in before being frosted from the middle to the end of October.

SEPARATING POTATO SEED FROM THE PULP (Idem).—Reduce the "apple or crab" to a pulp, and this being washed in water the seeds will sink to the bottom; the pulp will swim or mingle with the water, and may be poured off. Continue the washing until the seed is thoroughly cleansed, and dry it before storing away in paper.

SOWING APPLE AND PEAR PIPS (Idem).—They may be sown now, but are better kept in a rather moist place thinly spread until February or March, or they may be kept in shallow boxes in dry sand in a cool place. They shrivel because the seeds are not well ripened, and by being kept in too dry a place.

THINNING PEACH SHOOTS (A. B. C.).—You will have sufficient young wood if the shoots are 6 to 8 inches apart, but we should limit the thinning to the old bare shoots or long bare branches, and to those which have fruited this season. If the shoots 18 inches to 3 feet long have triple buds at about 14 inches length you may shorten them to those, and safely, as in such a length there cannot fail to be wood buds, as well as at their extremities. It will not injure them for future fruiting, but be conducive thereto by admitting light and air to the parts left, thereby securing their more thorough ripening of the wood.

EUCALYPTUS—WINTERING CALADIUMS (A. B.).—We cannot tell what the *Eucalyptus* may be without some description. There are about fifty species. The *Caladium* roots should be wintered in the pots and be kept without water, but the pots placed on a moist bottom from which they will derive sufficient moisture to keep the roots from shrivelling, and the temperature in which they are kept should be that of a stove—not less than 55°.

TURKISH GROWING TALL (St. E.).—They are tall because kept at a great distance from the glass and therefore are drawn, but under any circumstances they grow tall. It appears you can grow and flower them, and yet you ask us to give their treatment. The "greenhouse" *Daphne* is treated of in the "Greenhouse Manual." You cannot have a more suitable Vine than the Black Hamburgh.

PINK OR ROSE-COLOURED ROSES (Midland Mule).—Baronne de Rothschild, Baronne Prévost, Charles Bonillard, Edward Morren, Louise Peyronny, Duchesse of Edinburgh, Comtesse de Chabillant, and La France.

FRUIT TREES FOR GARDEN (X. X. X.).—We presume you want pyramids or bushes. *Plums*.—Dessert: Golden Gage, Green Gage, and Transparent Gage. *Kitchen Plums*: Prince Englebert, Victoria, and Yellow Magnum Bonum. *Strawberries*: La Grosse Sucrée, Sir Joseph Paxton, President Lucas, Dr. Hogg, and Helena Gloede. *Pears*: Jargonelle, Williams' Bon Chrétien, Beurré d'Amanlis, Louise Bonne of Jersey, Beurré Hardy, Marie Louise, Thompson's, General Toddleban, Beurré Diel, Gloe Morcen, Beurré Bachelier, and Beurré d'Arenberg. They are named in the order of ripening, and not as to quality, for all are good. *Cherries*: Empress Eugénie, May Duke, Bigarreau, Bigarreau Napoleon, and Morello. *Damsons*: Cluster

or Crittenden, and White. *Desert Apples*: Red Astrachan, Kerry Pippin, Mother Apple, King of the Pippins, Cox's Orange Pippin, and Reimette du Canada. *Kitchen Apples*: Lord Suffield, Cox's Pomona, Blenheim Orange, Warner's King, Dunselow's Seedling, and Bedfordshire Foundling. *Nuts*: Osoford, Red Filbert, White Filbert, Dwarf Prolific, Prolific Cob. A Clematis would answer for covering the spot, and O. Jackmanni would suit.

**VENTILATING GREENHOUSE (Idem).**—For a greenhouse 20 feet by 10 feet you will need more than the 11-inch width of ventilation at the upper part of the house, which should not be less than 18 inches; and as for dispensing with front ventilation it is a mistake, as you cannot have too much of it in hot sunny days, and the iron gratings proposed in place of front ventilation will be inadequate. Every other—better every light of the front—should be made to open in addition to the top ventilation of the increased width named.

**DIVIDING AND PLANTING LILY OF THE VALLEY (W. H.).**—It may be done in November, or after the leaves are decayed, and in mild weather up to March.

**ONIONS BOTTING (Idem).**—We can only conjecture that they are affected by maggot, for which, after an attack, there is no remedy.

**GRAPES NOT RIPENING (W. M. Grose).**—The symptoms you describe are those of shanking, but it is rare that shrivelling is accompanied with mildew and rotting. It is likely that had the berries been more and earlier thinned, more foliage encouraged, and strict attention paid to stopping, along with more heat, and at the same time more air, you would have succeeded in ripening the Grapes more satisfactorily. Under the circumstances we should yet apply more heat, admitting air very freely, and so secure the thorough ripening of the wood, upon which in a great measure depend next year's prospects.

**TREATMENT OF TOXICOPELLEA SPOTAZULE AND OTHER STOVE PLANTS (A. W. G.).**—Toxicopelma spectabile is a warm greenhouse or cool stove plant, and is propagated by cuttings of the young half-ripened growths in sand in bottom heat under a bell-glass. Peat soil with a third of fibrous loam will grow it well, keeping moist at all times, and watering freely when in growth. *Franciscea* succeeds in a compost of equal parts fibrous loam, sandy peat, and leaf soil, with a free admixture of silver sand and good drainage. Cuttings of the young shoots after they become firm root well in sandy soil in bottom heat covered with a bell-glass. *Eranthemum pulchellum* is also a stove plant, doing well in fibrous loam, with a third of leaf soil, and cuttings of the young shoots strike freely in sandy soil in gentle bottom heat or without, but emit roots less speedily. *Streptelia juncea*, another stove plant, requires two parts fibrous loam, one part sandy peat, half a part leaf soil, and a sixth of silver sand and good drainage. It is propagated by suckers or dividing the plant, and requires to be kept very copiously watered when in growth, and kept rather dry when at rest. All require light and airy positions, and abundant atmospheric moisture when making fresh growth, and water when not growing to keep the foliage from flagging.

**PROPAGATING VIOLA PERFECTIO (S. P. P.).**—Select cuttings of 2 or 3 inches in length, which come directly from the base of the plants, inserting them in sandy soil in a cold frame, or in a sheltered position outdoors, and keeping moist and shaded until rooted, and when well rooted plant-out after hardening-off in a sheltered border about 8 inches apart, and in spring move with balls to where desired. The cuttings may be put in at the present time.

**BREEDING GERANIUMS (Idem).**—We cannot improve upon your selection—viz., Cornish, the best scarlet; Master Christine, the best pink; but Amaranth (Pearson) is very good. White Clipper is very much superior to Madame Vanouber, but of taller growth; the most profuse-flowering white is White Princess, and yet there is no really good white bedding variety.

**DESTROYING THRIPS (S. M.).**—Fumigate your greenhouse on two nights in succession, and each morning following syringe your Myrtle with soft soap water of a strength of 8 ozs. per gallon, and mixed with one-tenth of tobacco water. Apply the solution at a temperature of 130°. Repeat this in three weeks and you will eradicate the pest.

**POTTING FRACH AND NECTARINE TREES (W. B. A.).**—If you intend to pot the trees again in the same sized pots, reduce the balls, saving as many of the fibrous roots as possible. It ought to be done at once. See "Doings," page 255.

**VINES IN CUCUMBER HOUSE (A Subscriber).**—You may grow both together as you propose, the forcing not being begun until March, the Sweetwater succeeding under the same conditions as the Black Hamburgs. Strawberries would do fairly, they having a position about 15 inches from the glass. They ought to have been layered in small pots so soon as runners were obtainable, and potted by the middle or end of August into 6-inch pots. You may succeed fairly by now potting-up any strong plants into 7-inch pots, but neither the Vines nor Strawberries will do other than moderately well grown with Cucumbers, they being secondary to the latter. The Sweetwater Vine may be potted now.

**LIQUID MANURE FOR STRAWBERRIES.**—"OLD SUBSCRIBER" would add very much to the usefulness of his remarks by stating the composition and proportions of the ingredients in the 'ammonia water' and the 'lime water' which he speaks of.—A NOVICE.

**HEATING-POWER OF BOILER (C. C.).**—The size of the boiler is no criterion of the heating power, that depending upon the amount of surface exposed to the action of the fire. Your boiler will have about 8 feet of surface exposed to the action of the fire, which, without very hard stoking, will be sufficient to heat the 280 feet of 4-inch piping you propose attaching to it.

**STORING WALNUTS (D. O. J.).**—Remove the nuts from the husks, and if this be done at the ripening the nuts will turn out very clean, and store away in dry sand in a cellar or other cool place, and moist rather than dry, but not wet. They will keep in this way, or in stone jars stored in dry sand, for a lengthened period, but they will become more or less dried, and this, we think, you wish to avoid, and so do others, as the kernels in a dried state will not "peel," hence the nuts are kept in moist sand or soil to the deterioration of the quality or flavour, for in contact with moist soil or moisture they absorb it, and warmth being present growth must follow. By storing in dry sand, in a moist place and cool, we prevent any loss of flavour and arrest growth, whilst at the same time obviating the evils of over-drying; and though nuts so kept may not "peel," they may, by placing them for twenty-four or forty-eight hours in rain water, have the kernels restored to plumpness, peeling readily. The time of steeping is dependant upon the dryness of the nuts.

**EARLY AND LATE ROSE POTATOES (A Constant Reader).**—There is a great confounding of the "Early" with the "Late" varieties of this Potato. The former is of very indifferent quality as compared with the finest-quality kinds. It is not really good at any time, but improves by keeping, being

more mealy, and is best after November. Late Rose is much finer, and after Christmas good. Steam them in their skins after clean washing, and peel whilst very hot, just before sending to table.

**GLOXINIA LEAVES BUSTED (M. W., Cork).**—The leaf is rusted and destroyed by thrips, which might have been prevented by fumigation with tobacco, and growth encouraged by a moist atmosphere. To avoid its ravages in future afford the plants a moist atmosphere and a brisk heat, keeping moderately shaded and near the glass. The leaves for a good display of bloom should be nine times the size of the one sent us.

**PRINCE OF WALES CHRYSANTHEMUM LEAVES DISCOLOURED (Idem).**—It is constitutional and peculiar to this and a few other kinds, and more prevalent in a wet than a dry season, hence we conclude that it is remnant of overwatering or too high feeding. Very careful watering is necessary, not saturating, nor, on the other hand, allowing the foliage to flag through an insufficient supply. It also suffers in a close confined space; therefore, give plenty of space, and an open airy position.

**FRACH SHOOTS MILDEWED (Idem).**—The specimen sent is badly mildewed, the wood being green and very unripe. You have used "soapy water" and applied "sulphur." Perhaps so, but inefficiently. Syringe the trees thoroughly with a solution of soft soap, 2 ozs. to the gallon, and dust the parts effectually with sulphur from a dregger, and lift the trees so soon as the leaves commence falling, and make the soil very firm and moderately rich so as to induce stronger yet shorter-jointed and more fruitful wood, not allowing them to suffer by want of water at the root after the middle of June.

**COPING-BOARDS (C. P.).**—Mr. Lockhurst, who is a most successful cultivator, recommends inch boards to project at right angles 15 inches from the wall. He never removes them, at the same time it is advisable to so fix them that they can be taken down if required. These boards afford great protection from frost, and are valuable aids in assisting the ripening of the wood of the Peach trees.

**INSECTS ON SOLANUMS (K.).**—The leaves sent are infested with thrips and red spider. Syringe them with soft soap and tobacco water of the same strength as that recommended to "S. M.," applying it at a temperature of 100°. The solution must be applied forcibly to the under sides of the leaves, and the plants should be syringed daily afterwards with clear water.

**NAMES OF TREES (J. O.).**—1, *Pinus austriaca*; 2, *Pinus montezumae*.

**NAMES OF FRUITS (H. W., Penze).**—The Apple is New Hawthornden. (J. Woodlife).—Neither are Tower of Glamis; 1, quite rotten; 2, Wallington or Dunselow's Seedling; 3, Golden Noble. Pear rotten. (A Constant Reader).—3, Beurre d'Amanlis; 4, Beurre d'El; 2, Probably Vicar of Winkfield. Send the others again when ripe. (A Contributor, S. W.). 1, Beurre d'Amanlis; 2, Easter Beurre; 4, Beurre d'Arenberg; 2, not known. (L. Constant Reader).—3, White Doyenne; 4, Beurre Berkman; 5, Beurre de Capeman. (A. Ager).—2, Dunselow's Seedling; 4, Pomona; 5, Bedfordshire Foundling; 6, Blenheim Pippin.

**NAMES OF PLANTS (S. B.).**—*Glaucium luteum*, the yellow Horned Poppy. There is a portrait and full account of it in our "Wild Flowers," fig. 149. (T. W. Bague).—Leaf only. (B. L. D.).—*Fraxinus racemosa*. (Signe).—A species of *Fyrus*. (T. E.).—We cannot name from leaves. (M. H.).—1, *Chelone glabra*; 2, *Solidago Virgaurea*. (James Ferguson).—*Funkia orata*. (An Old Subscriber).—*Atriplex horrida*, which used to be much cultivated as a vegetable. (M. H. M.).—The Scarborough Lily, *Vallota purpurea*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### MICHAELMAS-DAY.

YESTERDAY (September 29th) was Michaelmas-day, and this is our Michaelmas number. The Geese have been slaughtered in *memoria*, and apple trees and the sage and onion beds have had inroads made upon them. This is all we can say here about the patron bird of Michaelmas, so we must turn to other topics connected with the world of which he is a member.

Three months ago to-day was Midsummer-day, and then we sighed of ourselves for ourselves as we saw the small ranks in the chicken runs, and knew what the summer shows could only produce under the circumstances. Our forebodings were correct, for now, taking a retrospect of the shows of those three months, we plainly see that it was a bad summer chicken season, and that very few produced birds of any note whatever.

Michaelmas is now here, and the autumn shows will commence, and with the new quarter we hope for and expect better things. Some of the classes at the late chicken exhibitions have been most wretchedly represented; but now a new quarter has dawned—

"When earth repays with golden sheaves  
The labours of the plough,  
And ripening fruits and forest leaves  
Are brighter on the bough."

Nottingham commences the new list, but that is not a regular chicken show; it is followed, however, by the Alexandra Palace and Oxford Exhibitions, where the *élite* of chickendom will doubtless be found, and then comes the other Palace, and then the full whirlwind of shows is upon us. We hope for well-filled classes in future, and to find the old names, which have been more or less absent of late, figuring well to the front. There has been time now to get over the woes of the early year, for by October everyone will surely have something good to exhibit. The summer chickens have had their day, and now exhibitors must buckle-to for a sharp contest, and produce fresh chickens from their *corps de reserve*, for those which have done battle through the summer will now in many cases have to make way for others. It is, of course, well known that those birds which are sent from show to show through the hot and trying summer months never do much good afterwards. Certainly some few



which are produced later in the summer, and are not so much knocked about, do live to be the glory of autumn and winter events, but we can call to mind but few specimens which promise to do so this season. A few of the best Cochins and Brahmas—we speak here of the large breeds—may again crop up in the prize lists, but we fancy we shall see in most classes at the forthcoming autumn and winter shows a perfect *bouleversement* among the late winners, and shall find old names with new birds to the front once more.

Let us take a retrospective look in this our Michaelmas number at the chickens of the past two months. We do not mean to individualise certain classes at certain shows, but take a brief peep of what has so far appeared. We doubt if any one chicken show can be called a real success, and at many the results have been positively calamitous. Mr. Watts's heart-rending epistle, to which we hope his patrons will turn their attention, speaks more graphically than ever we can do of the unfortunate *finale* of the one large chicken show which has been up to now held; but some shows have come off worse than others, and we fear the poultry department of Middleton, Wisbeach, and hosts more must, as far as entries are concerned, have experienced a great loss and heavy check to their ardour this last season. Dorkings have, perhaps, this year been better in quality than quantity. We have found nowhere the classes of the 1874 summer shows; but, on the other hand, no bird was then produced to equal the cup Birmingham and cup Bath bird of last month. In Dorkings of other colours we have seen one or two good Silver-Gray cockerels, but nothing in pullets, and nothing striking in Whites or Cuckoos. The summer Cochins, again, have been but sparsely found, and the winners have been mostly in the hands of one or two. Partridges have, perhaps, been the best, and there are one or two good chickens to be found. Of Whites there has positively been exhibited nothing worthy of remark if we except the winning cockerel and pullet at Aston Park. Brahmas have made the greatest mark, the Lights especially; but, then, "everyone keeps Brahmas," as a gentleman said to us at Bath the other day. Certainly their admirers are legion, and the classes have consequently more reason to be well filled. Two or three good Darks have been out, and will now, we suppose, be going in, for Mr. Ansell's cockerels have done him good service. The pullets have been pretty fair, but they have not had their usual size and shape. The Lights have been very good, still in them a few good birds stood clearly out; but both cockerels and pullets have made a most creditable appearance, and surpassed, perhaps, on the whole all other breeds. Spanish and Game have made small classes, and the chickens have been late specimens. We have not seen one Game chicken to really admire, and this time last year Mr. Matthew's Birmingham Duck-wing pullet was the talk of everyone. French have mustered well, Houdans especially, though Crêves have looked up latterly. Houdans are very precocious, and soon come on, maturing quickly, and are consequently useful birds for the early shows. We fancy for quality and quantity, as a lot, Houdans would come pretty high in an average list this summer of 1875. Hamburgs seem to have appeared in fair numbers in the north, but at the midland and southern shows have been badly represented; even such shows as Shrewsbury, with its panoply of prizes, produced but a sorry lot of entries. We hope better times are dawning, and that we shall find numbers as well as quality in future, for Hamburg people have not to secure weight or size, which are the stumbling-blocks to so many breeders of other varieties. We have seen a few good Polish chickens, among them some very promising White-crested Blacks; but we regret to hear we are losing from our poultry ranks one of the oldest admirers of this latter breed, and one who has done an immense deal to keep it from extinction in past years. Then in the Variety classes we can remember nothing worthy of remark except the Malays, whose supporters have sent to the front some splendid chickens. Minorcas, Leghorns, Silkies, and such unhappy denizens of the various refuges have been a moderate lot. We cannot help remarking, however, here on the immense trouble that Mr. Kitchen is taking to push his commodity, and we hope he will do so successfully, for we gather that Brown Leghorns are extremely hardy and very free layers at all seasons. Bantam chickens have not been a very gay lot; we almost think we give the palm to the Blacks, though we have seen a good pen or two of Seabrights; the Game, however, have been, as a lot, considering the great favour they hold and the extensive way they are bred, decidedly disappointing. Waterfowl, Turkeys, and Geese have been quite up to the mark, and in many cases superior to those of past seasons. It is satisfactory to end this peep at the summer's birds with something that has been a credit to the breeder and exhibitor in this trying season.

Thus much, then, for the chickens from Midsummer-day to Michaelmas. No doubt many breeders have yet to produce their birds, and others have fresh specimens to fall back upon. Anyhow, chickens good and valuable should now be plentiful; for, as we before said, the later-hatched birds have had time to

grow and develope, and we shall expect, consequently, from this Michaelmas-tide to find the classes well filled as in bygone seasons, and the whole poultry world once more back in their old places and in their old form.—W.

### OXFORD POULTRY SHOW SCHEDULE.

ANOTHER October is near at hand, and the Oxford Poultry Show for the fourth time is not far distant. The schedule is more tempting than ever, and this Show should even surpass all previous Shows. After the Palace perhaps no Show of late years has literally galloped into public favour like Oxford. This must be extremely satisfactory to the indefatigable Hon. Secretary Mr. King and his Committee, who have spared no money or labour to make their Poultry Show worthy of their city, which in so many points stands unique. It is quite refreshing to turn to the rules and read them. We find a wonderfully low entry fee—only 5s., with first prizes of 60s. or a 68s. cup. Several pens of birds may come in the same basket. The prize cards so valued by some, especially amateur beginners, will be forwarded on to the winners. The Judges are announced—viz., Messrs. Esquillant and Jones for Pigeons, and Messrs. Hewitt and Teebay for the poultry; and a very good rule as regards sales—viz., instead of an auction, which at so many places is a perfect failure, we find the sale office will be open for two hours to receive tenders, the highest, of course, securing the bird. We can all remember that the crack Dark Brahma pullet of last season was bought a bargain at a show where this rule was in use. The classes are for poultry fifty-one in number, and there are also in this department forty-one pieces of plate, or money may be taken instead if preferred. Among them we notice H.R.H. Prince Leopold again gives the Dorkings a champion cup. Local folks, too, must come well to the front at Oxford, for we find sixty-two local prizes and two local cups.

Looking over the various classes we find Dorkings have four classes, Cockerels four, Game six, and Hamburgs five, for a cockerel and pullet in each pen. Some of the classes have four prizes, such as Dorkings, Brahmas, Houdans, &c. Polands have two classes; we are glad to find one is for White-crested Blacks. We hope they will muster better than last year. They hardly deserved a class after last season's behaviour. Malays and Silkies have each a class, while Americans have two, one being for Brown Leghorns and one for Any other variety. Bantams are well provided for, and there is a class for Pheasants, which we hope will be well supported. Waterfowl are in high favour. Blacks and Calls have each a class; the former generally make such a beautiful show at Oxford, and we hope they will do so again this season. They are arranged always in the upper gallery, where the light is perfect. The Sale classes are well divided, and the prizes numerous and handsome.

Pigeons, too, seem to have a good friend in Mr. Salter, for here they have thirty-four classes, with three prizes in each class and fifteen pieces of plate. We shall expect to find the Town Hall as full or fuller than ever. The breeds are well divided up as to colours, for we even find two classes for Magpies. There are two classes for Carriers and one for Barbs hatched in 1875.

We cannot find one thing in this good schedule to find fault with, and we sincerely hope all fanciers will respond and make this Show as good as it deserves to be. We hear that full arrangements will be made for all the birds that come on from the Alexandra Palace being well fed, kept in clean pens, and provided with green food till the Judges come round: consequently all who have entered at the Alexandra can with confidence enter here also and have their birds sent on direct, thus saving carriage and labour. Mr. King will, we hear, be ready at Oxford to receive all such birds on Friday and Saturday, and both he and his Committee will personally superintend their being unpacked and well seen to. We cannot help saying that we are very glad to find these two good Shows ready and pleased to work together, for we have heard the kind expressions of Messrs. Nicholls and Jones on the matter. The entries close on October 9th, and we would remind our readers that at Oxford entries do really close on the day they name, and that no "acts of grace" are there given.—W.

### AYLESBURY POULTRY SHOW.

AYLESBURY is always a pleasant little meeting. The Show is nicely arranged, and the covered meat market makes a most excellent place for the Exhibition. We always find good birds here, for the Show is only for one day, and the prizes very liberal, consequently exhibitors do not mind sending good specimens. They are very prompt here, too, with the catalogues, sending them out as quickly as possible, and the Aylesbury Show of 1875 has proved no exception to other years. The entries were not quite so numerous as last season, but then other shows were being held in other places on the same day, which of course must make some of them weak in their classes.

Dorkings all competed together, and came first in the cata-

logue. There were nine pens. We did not fancy the quality was quite equal to the usual style here, but the cup pen were a fine pair all round. *Brahmas*, too, were classed together. We generally find a good pen or two from Stoke Park at this Show, Mr. Wragg making it his "opening day;" but this year Lady Gwydyr's name is not in the catalogue. The cup pen was a grand pen of chickens, the cockerel especially good and large. The winning Lights, too, were good; but we hope next year to find *Brahmas* having two classes. *Spanish* made a fine class. It is quite pleasant to tell of fifteen pens being entered in one class when Long Sutton only mustered three pens in two classes with six prizes. A very good pair of adults won the cup, being large in face and good in combs: second went also to very nice old birds; while a promising pen of chickens took the third place; 96 (Mills), a nice pen of chickens, and so was the same exhibitor's pen 27, but the latter were younger birds. *Cochins* had three classes. The Buffs made the largest class, and Whites next. In Buffs a splendid pair of chickens won the cup; second also a promising pair of birds; third only middling. We thought there were two or three other pens here well worthy of notice. Partridges were very fine, the winners all good; the first chickens really splendid, and we almost thought the *Cochin* cup should have come here, the cockerel being such a beauty. Whites were a good lot; all the prizes were won by adults. Mr. Fowler sent a good pen of chickens in this class. *Games* had only one class, and consequently only six entries were made. A very well-shown pair of Duckwings of fine colour won the cup. Here, again, we recommend next year another class being made; exhibitors will not send in a general class of any colour. *French* made a fine collection, and we thought the prizes fairly awarded; the Crêves were especially good. *Hamburgs* had two classes, and the quality was first-class. A splendid pen of Silver-pencils won the cup; second going to good Golden. Spangles were very nice, one or two of the Golden cockerels being especially good in markings and points. *Americans* had a class, and came seven pens strong. A beautiful pen of White Leghorns won the cup; second also going to nice White chickens; 89 (Kitchen), neat Brown Leghorns; 94 (Fowler) Plymouth Rocks. Game *Bantams* had but one class and five entries. They evidently resented this insult of having but one class as much as their larger relations. The quality was fair. The Variety Bantam class were six pens in number. Nice Blacks first and third; and fair Golden-laced second; 106 (Cambridge), good Blacks. The Variety class was excellent. Polands were the best; the first-prize birds being very grand.

Aylesbury Ducks were not as strong in numbers as we should have expected in this their own birthplace. Mr. Fowler was well to the front with two noble pens, and once more kept-up the honour of his town. Rouens also were very good, and the quality even. In variety Ducks Mr. H. B. Smith cleared the lot with nice fancy birds. For Lady de Rothschild's £5 5s. cup for best pen of Aylesburys under certain conditions, only four pens appeared. A nice pen secured the cup, and the others were good, but we certainly expected to find more competition for this piece of plate. Geese were good, but again only four pens in number. The quality was, however, excellent, and all noticed. We were surprised to find no class for Turkeys here. Being a branch of an agricultural show, surely Turkeys should have a chance of distinguishing themselves, though we are afraid they do not often do it, judging from the few entries we have of late seen in the Turkey classes. The Sale class was large. The price per pen was limited to 80s., nevertheless many of the birds were very fair specimens, and an extra prize was awarded.

Mr. M. Leno was the Judge, and his awards gave satisfaction. We publish full prize list below.

**DORKINGS**.—Cup, Rev. E. Bartram, Barchampstead. 2, J. Taylor, Dorking. 3, J. Gee, Oxford. Ac, E. Woodford, Kidlington.

**BRAMMAS**.—Cup, H. Lingwood, Cressing. 2, Mrs. A. Tindal, Aylesbury. 3, J. Long, Bromley Common. c, E. Kendrick, jun., Lichfield; J. K. Fowler, Aylesbury.

**SPANISH**.—Cup, R. Wright, Holloway Road, London. 2 and 3, D. M. Mills, Newport Pagnell. 3, W. Notage, Northampton. Ac, H. Beldon, Goltstock; Mrs. Allsopp, Worcester. D. M. Mills; Mr. Allsopp.

**COCHINS**.—Buff.—1, Mrs. Tindal. 2, A. Darby, Little Ness. 3, E. Winwood, Worcester. c, Mrs. Allsopp. Partridge.—1 and 2, Mrs. Tindal. 3, J. K. Fowler. White.—1 and 2, Capt. G. F. Talbot, Eden Bridge. 3, C. Bloodworth, Gt. Eltham. Ac, Mrs. A. Tindal. c, J. K. Fowler.

**GAMES**.—Cup and 2, S. B. Mathew, Stowmarket. 4, H. E. Martin, Sculthorpe. Ac, E. Winwood. c, G. E. Fisherbert, Sevenoaks.

**FRENCH**.—1, H. Feast, Swansea. 2, J. K. Fowler. 3, E. Burrell, Farrington. Ac, W. Dring, Faversham. c, W. Cusack, Littleport.

**HAMBURGERS**.—Gold or Silver-pencilled.—1, E. Beldon. 2, J. Robinson, Garstang. 3, C. Judson, Peckham. Ac, H. Beldon. 3, Carr, Swansea. Gold or Silver-spangled.—1, H. Beldon. 2, J. Robinson. 3, J. Long. Ac, J. Long; J. Carr.

**AMERICAN FOWLS**.—Cup and 2, J. K. Fowler (White Leghorns). 2, E. Burrell (White Leghorns). c, E. Kites, Wetherham; A. Ward, Wimpole Street, London; J. K. Fowler (Plymouth Rocks).

**BANTAMS**.—Game.—1, E. Winwood. 2, W. Adams, Ipswich. 3, A. Darby. Any other variety.—1, W. K. Shackleton, Bradford. 2, E. Pritchard, Tettenhall, Wolverhampton. 3, H. Beldon.

**ANY OTHER DISTINCT VARIETY**.—1 and 2, H. Beldon. 3, A. Darby. Ac, J. Robinson.

**DUCKS**.—Aylesbury.—Cup and 2, J. K. Fowler. 3, J. Hodges, Aylesbury. 2, T. Kingsley, Aylesbury. Rouen.—1 and 2, W. Evans, Freetown. 3, J. G. Ac, Mrs. Badelyle, Hyde. c, E. Woodford. Any other variety.—Cup, 2, and 3,

H. B. Smith, Broughton, Preston. 3, J. Walker, Rochdale; W. Boucher, Lancaster Road, London. Ac, J. Walker; W. Boucher. Aylesbury.—Cup, W. Roberts, Long Marston. Ac, Mrs. E. Marshall, Canagana, St. Day. c, F. Payne, jun., Aylesbury.

**GRAYS**.—1 and 2, J. K. Fowler. 3, Mrs. Badelyle. Ac, T. Kingsley. **SILVER-GREY**.—1, Mrs. A. Tindal. 2, J. Hodges. 3, G. Bentley. Extra 2, W. Weston, Aylesbury. Ac, W. Botton, Aylesbury; Mrs. Allsopp; W. Clarke, Aylesbury; J. K. Fowler. c, Mrs. Allsopp; J. K. Fowler.

## LONG SUTTON POULTRY SHOW.

This was held on the 22nd and 23rd inst. The entries this year were not in numbers as good as usual, but the quality was quite up to the mark. We miss many familiar names in the catalogue, but suppose that other shows nearer home kept the birds away. It seems to us a remarkable thing that committees will allow their shows to clash so much, for last year Aylesbury and Long Sutton held their shows on the same days, and we should have thought they would have learnt better. We notice ten days to spare in October before the Alexandra Palace when there is no exhibition to be held, and we should recommend some society which has hitherto clashed with another, and so damaged the interests of both, seizing upon this date at once, for it will soon be snapped-up. Dates of shows in these days must be fixed early and advertised continually if success is desired in the number of entries. The Polish classes have disappeared this year, and possibly this was the cause of the absence of our Yorkshire friends. The Show was nicely managed, and the pens of Turner's were well arranged. Mr. Helliwell, jun., looked after the birds, and kept to his duties well. Mr. Teebay awarded the poultry prizes, and Capt. Heaton those of the Pigeons, and both gentlemen performed their parts in a satisfactory way.

The first class was for *Dorking* cocks or cockerels, but only two entries were made, and of them a good Coloured cockerel was the winner. In *Dorking* hens a very fine Silver-Grey came in between two splendid Coloured birds, and they made a beautiful trio. *Cochins* were small classes; the quality was, however, good. In Buff cockerels the winner was a well-grown bird of even colour; second and third also good. In the other Buff class fine pullets were first and second, third going to a fair old hen. Partridges were good, the first cockerel especially so. In the other *Cochin* classes most of the prizes went to the Whites. The first cockerel was smart and nice in shape; second a very promising bird, but as yet unfurnished, lately come from Pembury we believe; and third a Black. White hens were very good and nicely shown. Dark *Brahmas* were capital. A beautiful cockerel with much style and feathering won first, while the same exhibitor's grand hen landed him the extra of this section; the second went to a well-marked pullet, but not enough "unhatched" for our taste. Only four Light cocks were entered. Of them the winner was a good chicken of great promise. In hens a grand old bird was first; she was beautiful all round, and must be one of the Quenborough lot we should think; second went to a very pretty pullet. *Hamburgs* mustered miserably: only six pens of Spangles for six prizes! This is easy winning with a vengeance; but the quality of this half-dozen was very good, and they deserved their places. Pencilled, too, were poor classes in numbers. A nice Gold won the extra, but the winning Golden-spangled must have been close on him for this honour. The Pencilled pullets were good, all being of the Golden variety. The first pullet was clear in markings and generally good. *Games* were very weak in quantity, the quality being good. Only sixteen entries were made for twelve prizes; the extra went to a splendid Duckwing, good in carriage and head. The Black Reds were very fair. A good Brown Red pullet won in the other hen class, nice Piles taking the other two places. *Spanish* made the worst exhibition of the lot. We were fairly amazed to see only three pens competing for six prizes! The winners were fair specimens. *French* were very good—in fact, almost the two best classes in the Show, fifteen out of seventeen birds coming in for notices. In the cocks Crêves won all the prizes, and so they did in the hens, and it was something to win in such company. Brown *Leghorns* had a dozen entries; most of them were chickens. Had there not been an American class also at Aylesbury on the same day the muster would doubtless have been even better. Mr. Kitchen's were nice birds and well shown. The seconds were also neat chickens. The Variety classes were small. In cocks a Malay, Black *Hamburg*, and Poland won in the order named, a splendid Golden Poland hen winning also in next class and taking the extra. *Bantams* were beautiful classes, and, in fact, were the best part of the Show. A very stylish Black Red cockerel won the Bantam extra. In the other cock class a smart Pile came in first; second also went to a nice specimen of this colour. The hen classes were very good. A beautiful Brown Red won first, second going to a neat Pile, and third a pretty Duckwing. Black *Bantams* were good. In the Variety class Mr. Leno's Silver-laced again won him first, a good White-booted bird being second, and White Rose-combs third. *Water-fowl* were grand classes. The Rouens simply splendid, no less than nine pens coming in for notices deservedly. The extra went to a well-grown pair of Aylesbury ducklings. Every

Any other colour.—1, A. & W. H. Silvester. 2, H. Yardley. 3c, A. & W. H. Silvester; R. Fulton.

Owls.—1, R. Fulton. 2, L. Allen.

Barns.—Cock.—1, R. Fulton. 2, J. Firth. 3c, R. Fulton; H. B. Massey. 4, C. G. Cave. Hen.—1 and 2, R. Fulton. 3c, J. Firth. 4, H. Yardley; J. Firth. Young Birds. Extra and 2, J. Firth. 3c, W. Massey.

Asparagus.—Cock or Hen.—1 and 2, H. Yardley.

Jacobs.—Extra and 2, R. Fulton. 3c, W. Woodhouse; L. Allen.

Turkeys.—1, T. S. Stephenson. 2, R. Fulton.

Ducks.—1, N. Smallpage, jun. 2, R. Fulton. 3c, R. Woods (H).

Any other variety.—1, R. Fulton. 2 and 3c, A. & W. H. Silvester. 4c, H. Yardley.

Swelling Class.—1, H. Simpson (Carriers). 2, R. O. Jardine (White Dagoons). 3c, J. S. Howard.

#### RABBITS.

Lop.—All properties.—Buck or Doe.—1, T. Schofield, jun., Chesham. 2, J. Barker, Lough. 3c, Mrs. Pickworth. Broken colour.—Buck or Doe.—Extra, T. Schofield, jun. 2, C. Klag, London. 3c, Mrs. Pickworth; C. King; E. Frost. 4, W. Cunningham; J. Barker.

Himalayan.—Buck or Doe.—1, C. G. Millett, Fairfield. 2, J. Barker. 3c, C. G. Mason; J. Tebbutt. 4, R. A. Boissier.

Dutch.—Buck or Doe.—1 and 2, Mrs. Pickworth, Moulton Marsh. 3, R. H. Moss, North Ferriby.

Any other variety.—Buck or Doe.—1, H. Swetnam, Falford (Angora). 2, H. W. Wright, London (Silver-Grey). 3c, T. Schofield, jun. (Silver-Grey); R. S. Smith (Silver-Grey); B. Groves (Belgian) (H). 4, C. G. Johnson (Silver-Grey); E. B. Smith (Silver-Grey).

Heaviest.—Buck or Doe.—1, A. Nalby, Spalding. 2, J. Brown, Boston.

Swelling Class.—1, W. Beatty, Long Sutton (Black-and-white). 2, Mrs. O. E. Cave, Spalding (Lop). 3c, Mrs. Pickworth (Belgian Hare); J. Barker (Yellow-and-white Lop); A. Spencer (Himalayan); C. G. Mason (Himalayan); E. Frost (Grey-and-white Lop). 4, C. King (Silver-Grey); W. Kirby (Yellow-and-white); P. Booth (Sandy-and-white).

### ALTRINCHAM SHOW OF POULTRY, &c.

THE fourteenth annual Show was held on the 22nd and 23rd inst. The schedule for poultry is a good one, and in consequence the entries were good—about three hundred in all—the whole, except Turkeys, Geese, and Ducks, being for young birds; the whole of the above-named being very good, the Rouens a large good class, and the cup awarded to them.

Spanish cockerels were a good class, but several of the best-looking rather flat. Pullets better than the cockerels; but only five entries. In Black-breasted Red Game some of the otherwise best were sadly duck-clawed, especially the pullets. Brown Reds were better. In cockerels a smart forward bird was first; the second, a dubbed bird, had a fine head, but would have been better uncut for a while longer. There were some very young birds of great promise. Pullets a good class. In cockerels of any other breed Piles were first and second, and a Duckwing third; the whole very good, the first being a grand bird, but as yet quite unfurnished. In pullets Duckwings were first and second, and a Pile third; the first a grand bird of good colour. Dorking cockerels a fair lot, but the first-prize bird very rough-legged. Pullets, first and second Dark, and third Silver-Grey; a fair lot. Cochins, Buff, only four entries, but these very good, and the cup for Cochins awarded here. Pullets very good and high in colour. In any other colour cockerels Partridge won the prize; and in the next class the first and third were Partridge, and second White, the first a pullet with such pencilling as has never been seen before, but a little short of leg-feather; a large and good class. In Brahma cockerels the winners were well-known birds of previous successes. Pullets a large class, and many good birds; the first a grand bird, splendid in pencilling; second the Birmingham cup pullet, showing a little short in breast-marking; and third a good bird. In Hamburgs the entries were not large, but in some of the classes the Spangles of both colours by far the best, although there were some good ones in the Pencils, particularly the Gold-pencil cockerel and pullet, first-prize winners. There was no class for Black Hamburgs. French fowls produced some good birds, the first-prize Crève pullet being one of the best ever seen. The Polish fowls were much better than we have seen at any other show this season. The winners were Golden. Game Bantams had six classes, and all other varieties only one; but we would strongly advise that the latter class be divided, when there is no doubt but that the entries will amply repay that course. In Black Red cockerels the first was a grand stylish bird; the second also good was not in as fine order, but we did not consider the pullets equal to these. Brown Reds were very good, the pullets especially; in the latter our choice was with the third-prize bird, which had a most perfectly laced breast. In cockerels, any other, the winners were Piles, the third had yellow legs; but in pullets the first was a Pile, and second and third Duckwings. In the Any other variety of Bantams a silver cup was offered by Mr. Townson, the well-known amateur in Pigeons, the result being a fair entry, but of such quality as we have not seen this season, almost every pen being good enough to win such a prize, which was, however, awarded to a pen of Silver Sebrights rather large but most excellent in lacing; the second and third being Black. In the Variety class Black Hamburgs won the prizes.

Pigeons were under a very good marquee, and the pens were from Messrs. Turner, the poultry being in the open field in the pens of the Society.

The collection of Pigeons was of such quality as is rarely seen together in a field show, the classes being also well supported in numbers, and these were well attended to with food and water; but we would draw attention to the system adopted by some

ALTRINCHAM. G. H. SHUTTLEWORTH.  
Toucan.—1, R. Fulton. 2, R. Fulton. 3c, A. & W. H. Silvester, Sheffeld.

exhibitors of feeding with some special mixed food before the arbitrations are made. This was the case here with one exhibitor, no doubt thoughtlessly, but this being about one of the best studs shown it might have served as a point for some ill-natured remarks by ill-disposed people, and after a few classes had been judged the whole were swept clean, and in future we would recommend all such to be disqualified. A silver cup, value £5, was offered by Mr. Crabtree for the best bird in the Show, and was won by one of the most perfect White Owl cocks we have ever seen, closely pressed however by a grand Black Pied Pouter, which lost only through a little dulness of colour. Carriers were a good class—first a smart stylish Dun hen, and second a Dun cock, good in all points but eye, which is rather small as compared with the beak wattle; very highly commended a very heavy Black hen, which in high condition must come to the front. In Pouters the above-named Black was first, and second a good Blue cock. A White, highly commended, was grand but a little flat; most of the others were deservedly noticed. Barbs very good, but many in the moult. First a Black, and second Red, and very highly commended Black. All cocks. Tumblers, Almonds good, the winners very well spangled and good in head; the highly commended birds too dark, but otherwise good. In Tumblers, Any other variety, first a Yellow Agate, and second a Red Bald. The class good. Dragons were a large class, the first going to a Silver hen of great quality and black bars, second to a young Silver hen, and extra second to a capital Blue. English Owls were a good class, and the winners in grand order. First a Blue, and second and extra second Silvers. Pen 1529, a grand Blue, but dull in eye. As before stated, the first in foreign Owls won the cup for the best bird in the Show; the second in this class was also White, and all the others noticed. Jacobins were not good as a class, though the winning Reds were very good. Turbits were a real good class, the first a Silver cock, and second a Red, an extra second being awarded to a capital Black. Fantails were mostly noticed, and the winners White. Antwerps were a fair class, the first going to a Silver Dun cock, grand in colour and Antwerp points, but a little wanting on top of beak; second going to a well-known Red Chequer, deep in moult; very highly commended a Silver Dun cock, a previous cup-winner, but now bad in eye and grizzly in colour. In the Variety class, which by the way was not as good as we expected to find it, the first went to a Blondinette, and second to a Black Trumpeter cock of the old style. The Selling class was large, the first going to a Black Carrier cock, and second to a young White Pouter, the third being a Blue English Owl.

For Rabbits there were six classes, but no extras, and the entries fifty in number. Lops had one class, the first going to a Fawn-and-white buck, 23½ by 4½ ins.; the second a Fawn doe, was 21½ by 4½ ins.; highly commended a Sooty Fawn doe, swarming with fleas. Angoras a smart lot, the winners very good in fur. Himalayans were a poor lot, the winners only being of any note. Dutch bad, except the first, a Yellow; and one Rabbit in this class was very bad of scurvy, and ought not to have been sent. In Silver-Greys the first was in splendid order and grand in colour, but a little shaded on head; second a good Rabbit, rather light but in deep moult. In the Variety class the winners were Belgian Hares, the first very good in fur but small.

At future shows we would advise that the Rabbits be accommodated with room in the tent.

TURKEYS.—1 and 2, J. Walker, Rochdale. 3, J. Brookwell, Wigan.  
 GEES (White).—1 and 2, J. Walker.  
 GEES (Gray).—1 and 2, J. Walker. 3, T. Mills, Seacombe, Birkenhead.  
 DUCKS (Aylesbury).—1 and 2, J. Walker.  
 DUCKS (Roman).—Cup and 1, W. Evans, Prescott. 2, P. Unsworth, Lewton, Newton-le-Willows. 3, J. Walker; W. Evans; J. Brookwell, C. W. Brinkley, Middleton. 4, T. Wakefield, Golborne; Haslam & Sootson, Hindley Common, Wigan.  
 SPANISH (Black).—Cockerel.—1, H. Wilkinson, Barby. 2, J. Roberts, Bladon,

Church. 3, H. Beldon, Bingley. Pullet.—1, T. May, Wolverhampton. 2, H.

#### RABBITS.

LOP-EARED.—Buck or Doe.—1 and 2, T. Schofield, jun., Chesham. 3, T. and E. J. Fell, Dalefield, Blackburn, Lancashire. 4, J. Crabtree, Denton.  
 ANGELO.—Buck or Doe.—1, B. H. Swaine, Heywood. 2, J. Butterworth, Rochdale. 3, F. Harrison, Altrincham; P. Dingle, Bowdon. T. & E. J. Fell.  
 HIMALAYAN.—Buck or Doe.—1, T. Schofield, jun. 2, J. Wright, Altrincham. 3, J. Butterworth, Rochdale. 4, R. Daine, Hale; W. Whitworth, jun., Hale, Altrincham.

DUTCH.—Buck or Doe.—1, T. Haslam, Timperley. 2, J. Butterworth.  
 SILVER-GREY.—Buck or Doe.—1, Fould & Chappell, Westborough, Dewsbury. 2, T. Schofield, jun. 3, T. Schofield, jun.; F. A. Stansfield, Rawtenstall; Fould & Chappell.

ANY OTHER VARIETY.—Buck or Doe.—1, T. Schofield (Belgian Hare). 2, H. Pimlott, Bowdon (Belgian Hare); T. Schofield (Siberian); F. Midwinter, Ashton-on-Mersey.

JUDGES.—Poultry, Mr. R. Teebay. Pigeons and Rabbits, Mr. B. Hutton.

#### OSWESTRY POULTRY SHOW.

As the district around Oswestry is noted for supplying immense quantities of poultry for table purposes to Manchester, Birmingham, and a few other large towns, it is customary to find some of the best of specimens exhibited at its annual Show. This year not only were the entries more than customary, but the quality was fully equal to all previous shows. This neighbourhood has supplied many of the finest exhibition Game fowls that were ever shown, and exceedingly high prices have been occasionally obtained for the choicest specimens, causing an amount of care and attention to be paid to the breeding of such Game fowls that is not generally carried out in other localities.

Black Reds and Brown Reds appear to be the favourite varieties, and for colour and character few could match them. The Black Reds were shown in pens enjoying a capital light, and they thus became objects of public interest. The Brown Reds, though by no means less praiseworthy, were arranged in the lower tier, and most unfortunately in a position as regards light

that necessitated taking every separate bird in hand to form even an opinion of their colour when judging, and prevented the exquisite feathering of the "starling-breasted" cocks being seen at all by visitors. This arose entirely from the light from the roof (the only one) falling directly on the tops of the pens, but another season we are assured this mistake will be carefully avoided. The Duckwings were very perfect in feather, and the Red Piles were shown in no less fine condition. In *Dorkings* all colours competed together, first-rate Dark Greys being in the highest position, but very closely pressed by one of the best pair of White Dorking chickens we have seen of this season. Mr. Sidgwick had possession of the whole class for Partridge *Cochin* cockerels, his two entries being the only ones. They were, as they always are, hard to beat, even had the competition been by the score. Mrs. Allsopp was the winner with a grand pair of Buff *Cochin* chickens, which were in admirable show trim. In Dark *Brahmas* Mr. Ansdell, and in Lights Mr. Dean, quite upheld their notoriety in their respective classes to the entire exclusion of all opponents. The *Spanish* were remarkably good, and very fine well-grown chickens throughout. The *Hamburgs* were fine classes of every variety, and by far superior to former Oswestry shows. In Game *Bantams* the first-prize Black Beds and the second Red Piles were perfection both as to size, health, and colour. Rouen *Ducks* and also Aylesbury *Ducks* were so far beyond those previously shown as to qualify that they became the most admired of any of the Waterfowls, though remarkably fine Embden and Toulouse *Geeses* formed large and well-competing classes. Among the fancy *Waterfowls* a fine pen of *Autumnalis* Whistling *Ducks* and a pen of very choice White *Decoy Ducks* were the successful ones. As to the latter they were remarkably perfect as to form of head and shortness of beak, but, as is always of late years, far too large in body to compare with those of some thirty years back, when "Decoy Ducks" were oftentimes seen but little larger than Teal. Wet weather was a drawback throughout the day.

latter taking the onp for the best pen in the Show. The *Hamburg* classes all contained some first-class birds. *Ducks* and *Geeses* were very good classes.

The *Pigeon* classes were mostly well filled, and some choice birds were amongst them. The *Owls*, *Dragoons*, and *Antwerps* were all large classes, and very good.

**GAME—CHICKENS.**—1, C. W. Brierley, Middleton. 2, T. Hall, Fallsworth. 3, W. Otter, Walsden.  
**SPANISH—CHICKENS.**—1, H. Wilkinson, Ebury.  
**COCHIN—CHICKENS.**—1 and 2, C. Sidgwick, Keighley. 3, C. Holt, Rochdale.

**BRAHMA—CHICKENS.**—Cup and 2, T. F. Ansdell, Cowley Mount. 3, T. Fye, Lancaster.

**DORKINGS—CHICKENS.**—1, J. Walker, Rochdale. 2, J. Stott, Rochdale. 3, J. Walker, E. Bamford, Middleton.

**HAMBURG—Golden-spangled—CHICKENS.**—1, T. Scholes, Hollinwood. 2, N. Martox, Denton, Manchester. 3, T. Scholes. *Sliver-spangled—CHICKENS.*—1, J. Lancashire, Chadderton. 2, H. Pickles, Ebury, Leeds. 3, M. Lancashire, Chadderton.

**HAMBURG—Golden-pencilled—CHICKENS.**—1, G. J. Duckworth, Church, Accrington. 2, H. Pickles. 3, W. Clayton, Keighley; T. Wricley, Jun., Middleton. *Sliver-pencilled—CHICKENS.*—1, H. Pickles. 2, H. Digby, Accrington. 3, E. Smith, Keighley.

**HAMBURG—Black—CHICKENS.**—1, H. Pickles. 2, J. Simpson, Hollinwood. 3, N. Marler; S. Lancashire, Chadderton; J. T. Simpson, Hollinwood; J. Garfield, Langlands, Huddersfield.

**ANY OTHER VARIETY.**—1, J. Fernley, Lowton, Newton-le-Willows. 2, C. Watson, Ebury, Leeds.

**BANTAMS—Game—CHICKENS.**—1 and 2, W. Bankerville, Manchester. *Any other variety—CHICKENS.*—1, J. Walker. 2, R. H. Ashton, Moulton. 3, J. Partington, Leigh.

**CHICKENS.**—1, R. Dawson, Cowleshaw, Oldham. 2, C. Holt. 3, H. Digby; R. Dawson.

**DUCKS—Aylesbury.**—1 and 2, J. Walker. 3, C. Holt. *Rouen.*—1, J. Walker. 2, C. Holt. 3, J. F. Fleming, Withington.

**GEES.**—1 and 2, J. Walker.

**TURKEYS.**—1, J. Walker.

#### PIGEONS.

**TURKEYS.**—1 and 2, A. & W. H. Silvester, Sheffield. 3, W. H. Tweedale, Fallsworth.

**CARRIERS.**—1 and 2, J. Walker. 3, J. Stanley, Blackburn; S. Dronsfield, Werneth, Oldham.

**OWLS.**—1, S. Dronsfield. 2, H. Crosby, Sale, Cheshire. 3, R. White, Manchester; S. Dronsfield; F. M. Garfield, Broughton.

**DRAGOONS.**—1, S. Dronsfield. 2, R. White. 3, J. Stanley; S. Dronsfield.

**BEACONS.**—1, Long-faced—1, O. Hopwood, Rochdale. 2, R. Wrigley, Delph. 3, R. Dronsfield; O. Hopwood. *Short-faced.*—1, J. Wright, Manchester. 2, R. White. 3, J. S. Collier, Rochdale.

**ANY VARIETY.**—1, J. Stanley. 2, G. Richardson, Rochdale. 3, S. Dronsfield; A. & W. Silvester, Sheffield.

**HAMPSHIRE—SPANISH.**—1, M. Jowett, Jun., Dunkinfield. 2, R. H. Greenwood, Rochdale. *Any variety.*—1 and 2, R. H. Greenwood. 3, J. E. Fletcher, Heywood.

Mr. James Dixon, Bradford, and Mr. James Fielden, Rossendale, were the Judges.

#### WETHERBY SHOW OF POULTRY, &c.

This was held on the 24th inst. The weather was unfortunately very wet, and the day a most comfortable one. This, with the severe illness of the energetic Secretary, Mr. Kell, caused many empty pens, which we do not usually find at such exhibitions.

*Geeses* were the first on the list, a grand pen of White geoslings taking first position. *Ducks* next these, and the ducklings being very good; Rouens being first in old birds and Aylesburys second. In *Cochins* out of seven entries only one put in appearance, and these were Bufts; but in chickens Bufts were first and Whites second. *Spanish* good, but in the moult. *Dorkings* moderate in both classes. The *Polish*, which were Golden, of fair quality. *Hamburgs* were but moderate, with the exception of Gold spangles, which were very good. In pairs of chickens of any distinct breed the first were capital Light *Brahmas*, and second Gold-pencil chickens. The *Bantams* in most classes being of fair quality, the first-prize Black Red chickens very good.

For *Pigeons* there was but one class, but the prizes were awarded in duplicate; the first and extra first going to Ios and Dragoons, second and extra second to Almonds and Carriers, and the thirds to Trumpeters and Jacobins.

For *Rabbits* there was one class, the first going to a pair of Angoras, one of which was very good in every respect; the second a pair of Fawn Lops, and third to Belgian Hares.

**GEES.**—1, O. A. Young, Driffield. 2, J. Simpson.

**DUCKS.**—1, O. A. Young. 2, — Meade. 3, J. Muirgrave. 4, J. Whitfield.

**DRAGONS.**—1, J. S. Muirgrave. 2, O. A. Young.

**TURKEYS.**—1, J. Simpson.

**GUINIA FOWLS.**—1, O. A. Young.

**COCHINS.**—1, Lowley & England, Boroughbridge. 2, W. Sinton, Driffield. 3, O. A. Young. 4, Lowley & England.

**SPANISH—Black.**—1 and 2, T. F. Carver. 3, J. Robshaw, Whitley. 4, J. Robshaw.

**DORKINGS.**—1, J. Robshaw. 2, O. Trith. 3, T. F. Carver. 4, O. A. Young.

**GAME.**—1, J. Robshaw. 2, O. A. Young. 3, O. A. Young. 4, J. Robshaw.

**POLANDS.**—1 and 2, T. F. Carver. 3, O. A. Young.

**PRESAINTS—Golden.**—1, O. A. Young. 2, T. F. Carver. 3, O. A. Young. 4, J. Robshaw.

**SILVER.**—1, J. Robshaw. 2, O. A. Young. 3, O. A. Young. 4, J. Robshaw.

**BEACONS.**—1, J. Robshaw. 2, Williams & Sons, Sharrow. 3, J. Robshaw. 4, J. Robshaw.

**HAMBURG.**—1, O. A. Young. 2, J. Robshaw. 3, J. Robshaw. 4, T. F. Carver.

**ANY OTHER VARIETY.**—1, T. F. Carver. 2, Wells & Sherwin. 3, O. A. Young. 4, T. F. Carver. 5, T. Goodwill, Newbridge.

**BANTAMS—Silver or Gold-faced.**—1, T. F. Carver. 2, O. A. Young.

c. Mrs. T. Longueville.

lop (Malays). 3c, F. Smith

3, G. Rogers, Woodhill.

3, Bentley, West Felton. 3c,

men, Oswestry; G. Rogers,

'elton, Salop. 3c, G. Cotter,

smith.

Mr. E. Hewitt of Birmingham officiated.

#### CHADDERTON SHOW OF POULTRY, &c.

This was held on the 25th inst. at Moston Park. The show of poultry and Pigeons was not large, comprising 155 pens in all. In many of the classes the specimens were of high quality, all being birds of this year.

The *Cochins* and *Brahmas* were very good, particularly Mr. Sidgwick's Partridge and Mr. Ansdell's Dark *Brahmas*, the

2, T. P. Carver. *Ad. Wells & Sherwin. Any other variety.*—1, O. A. Young.  
 1, O. Triffitt. *Any variety.*—*Chickens.*—1, Wells & Sherwin. 1 and *etc.* T. P. Carver. *Ad. O. A. Young.*  
*Friesons.*—1, Extra 1, and 2, Wells & Sherwin. Extra 2 and 3, T. P. Carver.  
 Extra 3, O. A. Young. *Ad. J. Shillbeck, Colton; E. Payler; O. A. Young. c. J. Payler; T. P. Carver.*  
*Hens.*—1, J. S. Wesley, 2, J. Wharton. 2, E. Digby. *Ad. J. Simpson; J. Wharton.*

The Judge was Mr. Hutton.

**THE ALEXANDRA PALACE POULTRY SHOW.**—Captain Henton has kindly consented to act as one of the Pigeon Judges in addition to those gentlemen whose names appear in the schedule.

## NORWICH AND NORFOLK ORNITHOLOGICAL SOCIETY'S BIRD SHOW.

The first great annual Exhibition of Canaries, Mules, and British and foreign Cage Birds under distinguished patronage took place at the Victoria Hall, Norwich, on the 24th, 25th, and 26th inst. In every respect the Show was the best held this season. Three silver cups were awarded. Messrs. Mackley of Norwich winning two of them, and Mr. Thackrey of Bradford the third. We shall continue our remarks next week.

COCKATOOS.—1, J. Drake. 2, M. Gedga. 3, J. Hart, Norwich.

ANY OTHER VARIETY.—1, W. Walters (Norwich).

Messrs. Blakston and Copeman were the Judges.

## HINCKLEY SHOW OF CAGE BIRDS, &c.

On the 21st of September a very good Show was held at the Mineral Bath Grounds, Hinckley, situated some few miles from Leicester. The Exhibition comprised Canaries and other cage birds, besides Rabbits and Cats. The rain which fell plentifully somewhat damped the affair, and was anything but suitable to the Rabbits and Cats, which were shown openly, whilst the birds were more protected beneath an open and capacious tent. The entries in the whole were upwards of 230, the greater portion of them being for birds. Several exhibitors of some pretensions put in appearance, but most of the principal prizes in the Canary classes fell to the lot of Mr. Adams of Coventry, who exhibited fifteen specimens mostly peppered. The other most successful competitors were Messrs. Bunting of Derby; Athervuch, Coventry; Goode, Leicester; Coldnew, Burton; and R. Whitaker of Darley, near Derby.

The show of Belgian birds was poor. Norwich good, the classes being well patronised. Crested birds beyond average quality, and must have taken a little sorting-out. Cinnamon birds not quite so plentiful, but rich in colour. Lizard birds exceedingly good. Mules first-class. The British and Foreign classes fairly represented considering the time of year, but the moulting season apparently is a favourable one for birds. In the local classes for cage birds there were about fifty entries, but there was nothing of an extra kind shown. The class for British birds was the best supported, there being fourteen entries.

RABBITS numbered three classes in the All-England part of the Show—namely, Lop-eared, Any other variety, and Heaviest. There were sixteen entries in the first class, fifteen in the next, and two for heaviest. The chief winners were W. H. Crewe, Esq., Etwell; and Messrs. Woods, Mann, Clew, Barrows, and Robinson. For the heaviest Rabbit, W. Kirby was awarded a second prize, the first being withheld owing to the want of sufficient competition. Local exhibitors made a score entries.

CATS.—There were about thirty Cats and kittens shown, but in some of the classes the first prizes were withheld for want of competition. In Class 19, heaviest Cat, only two entries were effected, one of which was that of Mr. Minton's white short-haired English Cat, the winner of first prize at the Crystal Palace, Birmingham, Hanley, Boston, and Burton-on-Trent. With all these honours surrounding it, we think a first prize might have been given at Hinckley; had the Cat not been qualified for so distinguished a position, it would have made all the difference. The following is a list of the awards:—

BELOIANS.—1, W. Stringer, Altherstone. 2, T. Moore, Thringstone. 3, E. Arnold, Hinckley.

NOVICH.—1, Clear Yellow.—1 and 2, J. Adams, Coventry. 3, R. Whitaker, Darley. *Ad. G. E. Russell, Brierley Hill. c. C. J. Salt, Burton; J. Athervuch, Coventry. Clear Buff.*—1 and 2, J. Adams. 3 and 4, J. Athervuch, c. R. Whitaker. *Marked or Variegated, Yellow or Buff.*—1, 2, and 3, J. Adams. 4, J. Athervuch. c. R. Whitaker; G. E. Russell. *Crested.*—1 and 2, J. Adams. 3, J. Goode, Hinckley. 4, R. Whitaker. c. W. Sowry, Leek; C. J. Salt.

CINNAMON.—Yellow or Buff.—1, 2, and 3, J. Adams. 4, T. Coldnew, Burton. *LIZARDS.*—Gold or Silver-spangled.—1, J. Athervuch. 2 and 3, R. Bunting, Derby. *Ad. J. Adams.*

MULES.—Any variety.—1 and 2, R. Bunting. 3, J. Goode. 4, W. Tinson, Leicester. c. G. E. Russell.

BRITISH BIRDS.—Any variety.—1, T. Coldnew. 2, O. F. Foxon, Lutterworth. 3, J. Lacey, Burton-on-Trent. *Ad. R. Pearson, Whitby.*

FOREIGN BIRDS.—Any variety.—1, R. Bunting (King Parrot). 2, J. Goode (Parrot). 3, R. Bentley, Earlsdon. 4, Miss Robinson, Hinckley (Bengal Parrot). c. E. Arnold; W. Rowbottom, Naffstone (Grey Parrot).

SIX CANARIES IN ONE CAGE.—1, J. Adams. 2, C. J. Salt. 3, W. Stringer. *SELLING CLASS.*—1, J. Adams. 2, Martin & Griffin. 3, G. E. Russell. *Ad. R. Whitaker. c. Moore & Wyan, Northampton.*

### LOCAL CLASSES.

CANARIES.—Clear Yellow.—1, Clark, Hinckley. 2, G. Geary, Barwell. *Ad. W. Watts, Burbage. c. W. Young, Hinckley. Clear Buff.*—1, M. Malpas, Hinckley. 2, G. Geary. *Ad. W. Martin. c. W. Taylor, Hinckley. Marked or Variegated.*—1 and 2, G. Suffolk, Hinckley. *Ad. c. W. Taylor. Any other variety.*—1, G. Geary. 2 and 3, E. Arnold. c. W. Beane, Hinckley.

SIX CANARIES IN ONE CAGE.—1 and 2, G. Suffolk. 3, M. Malpas. c. T. Pinches, Hinckley.

MULES.—Any variety.—1, E. Arnold (Goldfinch Mule). 2, G. Suffolk (Linnæus Mule). *Ad. J. Taylor, Hinckley. c. A. Clark.*

BRITISH BIRDS.—Any variety.—1, G. Cockings, Earlsdon (Thrush). 2, W. S. Primmore, Hinckley. *Ad. J. Taylor. c. W. Hall.*

### RABBITS.

LOP-EARED.—1, E. Woods, Blackthorn. 2, J. Mann, Burton. 3, T. S. Barrows, Leicester. *Ad. c. W. Colley. Any other variety.*—1, W. H. Crewe, Etwell, Derby. 2, R. H. Clew, W. E. Robinson, Esq., Ad. E. K. Hinch, Humberstone, Leicester; T. S. Ludlow, Hinckley. c. J. E. Pilgrim, Hinckley. *Heaviest.*—3, W. Kirby, Ashby-de-la-Zouch.

LOCAL CLASSES.—Lop-eared.—1, G. Biddington, Hinckley. 2, R. Austin, Nuneaton. *Ad. G. Biddington. c. M. Malpas. Any other variety.*—1, R. E. Pilgrim, Hinckley. 2, J. E. Pilgrim. *Heaviest.*—1, A. Farndon, Hinckley. 2, E. Munton, Hinckley.

### CATS.

TORTOISESHELL.—1 and 2, Mrs. Jordan, Naffstone. 3, W. Kirby, Tabby. 4, E. Sherwin, Hinckley. *Any other colour.*—1, T. Coldnew. 2, G. Godfrey. 3, J. S. Pocock, Great Berkhampstead. *Heaviest.*—2, E. Minton, Newcastle-under-Lyme. *Cat and Kittens.*—1, Mrs. Pocock. 2, A. Maddocks.

LOCAL CLASSES.—Tortoiseshell.—1, J. Wells, Hinckley. 2, T. Truslove, Burbage. Tabby.—1, J. Baxter, Hinckley. 2, E. Colman, Hinckley. c. Miss R. Moore. *Any other colour.*—1, E. Lord, Hinckley. 2, T. Hunt, Hinckley.

1, 2, and 3, J. Adams.  
**CINNAMON.**—*Variegated Yellow.*—1, T. Tanniswood. 2, J. Thackrey. 3, W. and C. Berrington. c. J. Wilkinson. *Variegated Buff.*—1, J. Adams.  
**ANY OTHER VARIETY OF CANARY.**—1 and 2, J. Shickleton (Ticked and Yellow Buff Copy). 3, G. & J. Mackley (Ticked Buff Copy). *Ad. W. Evans (Ticked Buff Copy). Ad. L. Balk (Lancashire Copy).*

### MULES.

GOLDFINCH AND CANARY.—Clear or bono-Rds Ticked.—1, 2, and 3, and *etc.* R. Bunting. 4, G. & J. Mackley.

GOLDFINCH AND CANARY.—*Spangly-marked Yellow.*—1 and 2, G. & J. Mackley. 3, R. Hawman. *Evenly-marked Buff.*—1, J. Stevens. 2 and 3, G. & J. Mackley. 4 and 5, *etc.*—R. Bunting. *Ad. R. Pearson, Whitby.*

GOLDFINCH AND CANARY.—*Dark.*—1, G. & J. Mackley. 2, R. Bunting. 3, R. Hawman. *Ad. R. Bunting; G. & J. Mackley.*

LOVET.—1, J. Stevens. 2 and 3, G. & J. Mackley. *Ad. G. E. Russell, Brierley Hill.*

ANY OTHER VARIETY.—1 and 2, G. & J. Mackley. 3, R. Hawman (Greenfinch Canary). *Ad. J. Drake, Ipswich (Black and Canary).*

### GROUPS.

SIX NORWICH CANARIES.—*Irrespective of colour.*—1 and 2, Provart & Willis. 3, J. Yallop. *High colour, three Yellows and three Buffs.*—1 and 2, W. E. Novell. 3, J. Yallop. *Natural colour, three Yellows or three Buffs.*—1 and 2, W. J. Hutchinson, Norwich.

### BRITISH BIRDS.

GOLDFINCH.—1, Knight & Spencer, Baldock. 2, J. Drake. *Ad. J. Swain, Flocking.*

LOVET.—1, J. Drake. 2, R. Pearson.

REDPOLE OR SKIRK.—1, G. & J. Mackley. 2, C. E. Dade, Norwich.

SOME THREUP.—1, *Front, Norwich.* 2, F. Cullitt, Norwich. *Ad. C. Watson, Norwich.*

MAOPLE.—1, M. Athow, Norwich. 2, W. Parfitt, Norwich.

ANY OTHER VARIETY.—1, R. Humphrey, Harleston (White Blackbird). *Ad. J. Drake (Miniature Owl).*

### FOREIGN BIRDS.

WAX BILLS.—1, W. Walter, Winchester.

SPARROWS.—*Coral-necked.*—1, W. Walter.

PARAKEETS.—*Australian Grass.*—1, J. Drake. *Ring-necked or Indian.*—1, J. Barrow, Sunderland.

LOVE BIRDS.—1, J. Drake.

FARROTS.—*King.*—1, Miss Bateman, Norwich. *Ad. J. Drake. Grey.*—1, J. F. Bresse, Norwich. 2, J. Yallop. 3, Mrs. Elyth, Norwich.



Cat and Kittens.—1, A. Beale, Hinekey. 2, T. Pratt, Hinekey. Ac, J. Gunn, Hinekey.

JUDGE.—Mr. J. Bexson.

### JACOBINS.

I WAS much gratified to see that my letter on the above birds had called forth articles from the pens of such able and experienced fanciers as Mr. Harrison Weir and Mr. Huie, confirmatory of my remarks. That the birds known at present under that name are utterly worthless there cannot be a doubt in the minds of those who have seen the old type. What, then, can be done to bring about a better taste and restore the old bird to his proper position?

Mr. Weir's remark that judges will in general give prizes when the classes are filled, though there may not be a moderately good bird in the lot, has no doubt had something to do with bringing such trash into their present position. This certainly ought never to be the case when the professed object of societies and shows is to improve the breeds of our fancy birds.

If a class, however numerous, do not contain the requisite properties to a fair extent, then the prizes ought to be withheld entirely. This, I imagine, would soon bring forward something better.

The most hopeless aspect of the case, however, is, that many of the present judges hold that those named birds are the correct type. Some, no doubt, err from never having seen the genuine high-class birds. Were they to see them side by side, I believe no fancier with the slightest good taste could hesitate for a moment in deciding which was the high-bred bird; indeed, it would be easy to distinguish them in the dark.

If the fine old bird is to be placed in his proper place, I again say that it is time something should be done; but what to do and how, it is not so easy to say. Perhaps Mr. Weir or Mr. Huie may suggest some way of accomplishing this. I hope the matter will not be allowed to rest here.—Geo. Urr.

### LIZARD CANARIES.—No. 2.

In a former number of the Journal (page 147, No. 750) I drew attention to a first-prize Lizard, an excellent life-like illustration of which was given, representing a famous bird exhibited at the Palace Show by Mr. T. W. W. Fairbrass of Canterbury.

I like to be in the company of the "fancy," whether it be the humble artisan or one in more easy circumstances. Like birds of a feather fanciers will mix together. I often think there is an abundance of fraternity about Canary fanciers, although at intervals there may be jars and difference of opinion. It reminds me of birds passing through their periodical moult—they generally come all right and smooth in feather. During my little chit-chat with a brother fancier something of interest is sure to crop up, either about seed (that has been serious enough of late), cages, or birds.

The following remarks may perhaps not be uninteresting to those who have of late moved in Lizard circles. Nottingham Canary authorities (and I look upon Mr. Joseph Widdowson as one) have assured me that "the oldest Lizard breeder in England is old Sam Godbar, who has bred Lizards all his life." When I heard that remark two years ago I wondered how old the identical "Sam" was, and upon inquiry having ascertained that he had passed the age allotted to man, I knew not where to look for one who had devoted so much attention to a particular breed of the Canary. So far as the Canary cause generally is concerned I could mention the names of other veterans—for instance, Waller, London; Newsome, Bromley; Bond, Derby; but cannot positively assert that they, like "old Sam Godbar," have been in the fancy "all their lives." Finding myself in "old Sam's" company (during one of the very recent Nottingham bird shows) in a "little back parlour," where fanciers chose to discuss bird topics (it's no use disguising the fact), I was much interested in hearing him relate his knowledge of Lizards as they ought to be (but not with white eye-lids as once stated in a paper now defunct), the famous birds he had bred, and into whose hands they had afterwards passed, to win for their respective possessors laurels as their own "bona-fide specimens" at some of the best shows in England. "Old Sam's" ambition was more for breeding a good thing or two, and either selling them or exhibiting the same in his own locality, than sending them to distant shows. Previous to my personal acquaintance with the veteran Lizard breeder, I had for years previous heard it remarked that So-and-so's birds had a strain of "old Sam Godbar's breed in them." Yes, and if I do not mistake, I think that the famous prize Lizards exhibited by Isaac Stevenson (the miner, of Old Basford) at the Crystal Palace some years back, had some of the same strain in them.

In accordance with my promise I will devote a brief space to exhibitors of Lizard birds who have during the past few years been most successful upon the show stages. I have generally found that where any breeder and exhibitor has paid

particular attention to the breeding and the bringing of them out, greater success has resulted than would otherwise have been the case had that attention been but partly devoted to the same.

As some proof of what exhibitors have done, and the opportunity offered to others, I may state that during the season of 1874-5 Mr. Fairbrass won no less than thirty prizes (eleven first, nine second, and ten third) with his Lizards, besides twenty-two honourable mentions. With one exception the above is the greatest achievement I am aware of respecting Lizard Canaries in one season, and Mr. Fairbrass may be justly proud of his birds when he states in a letter to me, "I feel a pleasure in forwarding you an account of the number of prizes won." The exception alluded to was that of Mr. W. Watson, jun's, famous Lizards, which the same year and the season prior to the above won twenty-three first, twelve second, and eleven third prizes, the birds having been exhibited for the decision of the following ten judges: Messrs. Barnesby, Willmore, Moore (Fareham), Calvert, Tuckwood, Bexson, Moore & Wynn, Blakstone and Clarke of Sunderland. Without exception Mr. Watson's Silver-spangled Lizard cock was one of the finest birds ever exhibited of its class. Mr. Watson was the winner of numerous prizes, besides a silver medal for the best bird in five classes at Newcastle, a silver medal at Leeds, and a copper kettle at Darlington.

Instances are known of other breeders gaining more prizes with Norwich and other birds, but there is no comparison betwixt the Norwich and Lizard breeds, it being much more difficult to bring perfect-marked Lizards to the front than Clear Norwich birds. I have often thought it would be well to encourage exhibitors in exhibiting their own bred stock by offering prizes to the most successful exhibitors and breeders of various kinds of Canaries.

The following are the names of a few enthusiastic admirers who have at various times gained some repute as breeders or exhibitors of Lizards:—Williams & Tuckwood, Nottingham; Stevenson, Basford; Taylor & Stevens, Middlesbrough; Rev. V. Ward, Hythe; Ritchie, Darlington; Fairbrass, Canterbury; Ashton & Martin, Manchester; Belper, Derby; Hawkins and Judd, London; Watson, jun., Darlington; Reid, Halifax; Smith and Preen, Coventry; Mackley, Norwich; Bunting, Derby; Hayes, Sutton-in-Ashfield; Warren, Macclesfield, besides other numerous breeders in the neighbourhood of the last-mentioned town and in Lancashire and Yorkshire.—Geo. B. BARNESBY.

### BRITISH BEE-KEEPERS' ASSOCIATION.

#### CRYSTAL PALACE SHOW.

THIS Association held its second annual Exhibition on the 21st, 22nd, and 23rd inst.; and although we have had such an unprecedented bad season, a few magnificent supers of honey ornamented the show-tables. But it was amongst the hives and appurtenances that the value of the Association's labours was chiefly shown. The hives now shown were almost without exception good; inventors and makers had taken the lessons of last year well to heart, and adopting what they thought most useful, had in many instances added novelties of their own, which still further improved the whole. A very large attendance of bee-keepers gathered together and enthusiastically handled the exhibits, freely buying for patterns those they admired most. Nearly everything of value in the Show was claimed where a fancy price had not been asked. A prize was offered for the best collection of hives and bee-furniture. The first was awarded to Messrs. Neighbour & Sons, whose collection made a grand show of itself. Conspicuous among the hives was a large bunch of mallot clover standing 10 feet high! This plant is said to be highly attractive to bees, and is often sown for their exclusive use. Mr. Marriott, the Crystal Palace bee-master, had displayed his exhibits in a pretty attractive manner, but an almost entire absence of modern bar-frame hives precluded his winning second prize, which was awarded to Mr. Abbott, and an extra prize of equal merit to Mr. Lee.

In the class for observatory hives there was nothing novel, and the Judges evidently thought a second prize sufficient award to Messrs. Neighbour for their well-known Woodbury observatory. Mr. Marriott showed an observatory hive full of comb but no bees. This exhibit had much better have been away, as the comb was evidently infested with wax moths, and infested by foul brood. In Class 2, for the best moveable-comb hive for depriving purposes, the competition was very close, several exhibits showing points of excellence that their neighbours did not possess. The Judges had a difficult task before them, but they eventually awarded the first prize, a silver medal and £1, to No. 4, Mr. O. N. Abbott; and a bronze medal for second prize to Mr. J. M. Hooker for No. 13; Mr. Cheshire's hive of 1874 with some further improvements being passed over. Both the prizetakers had adopted many good points of Mr. Cheshire's hive, and to them added a multitude of contrivances of their own, which, especially in Mr. Abbott's case, in our opinion spoils the whole. Nothing is more essential in a hive than

simplicity, and nothing could be further from it than the first-prize hive. The method of securing the frames in position is a good instance of this fault. It is very difficult to describe without drawings, but we will say the ends of the top bars of the frames are cut pointed like the teeth of a saw, and these fit into corresponding spaces in the front and back of the hive. To release them, so that they can be removed, 1 inch of the front and back is hinged and folds outward, the bees will, no doubt, propolise every serration, and the consequent jar on its rupture will bring them angry to the top; every experienced bee-master must know there is nothing more essential than quietness in manipulation. On reclosing the hinged slips we are at a loss to see how the crushing of many bees is to be prevented. For the purpose of contracting the capacity of the hive the interior is fitted with a diaphragm of vulcanite. This is a useless additional expense, as wood would answer every purpose. No crown-board is used, but the frames are covered with a carpet, which is placed directly on the frames. We do not know whether bees can depend on a supply of propolis without limit, but as the insects never rest until they have closed every chink and cranny, we fear much energy will be expended which might be more profitably employed honey-gathering. There was one thing that particularly struck us—viz., Mr. Abbott in the pages of a contemporary has many times most strongly advocated the absence of a bottom rail to the frames, and yet in this hive we note its presence. In this class Mr. Rusbridge exhibited a hive which he calls the Sussex Hive; it is simply a Woodbury spoiled by the absence of a bottom rail. The slots in the crown-boards also are twice the width they should be for successfully keeping the queen from the super. Conspicuous in this class was the Sherrington hive, a good, substantial, rectangular straw hive, but with an absurd roof, large enough to require two men to remove it before the bees could be reached. Mr. Cheshire's first-prize hive of 1874 was further improved by several little additions, and it is in our opinion by far the easiest hive to manage. In Class 3, for hives on the storifying principle, Mr. C. W. Smith took first and second, as last year, for the handsome Carr-Stewarton. The Sussex hive again appeared here, but we were unable to discover its right to claim as a storifying hive. Class 4, hives on the collateral principle, had but three competitors. Mr. Hooker took first, Mr. Pettitt second. There was no special merit in this class, and the Committee would do well to consider the propriety of abolishing it next year.

Class 5, for the most economical (best and cheapest) complete hive on the moveable-comb principle for cottagers' use. The first went to Mr. Abbott for a hive somewhat improved on his exhibit of last year, but spoiled by the same arrangement of frame, guides, and hinges as in Class 2. The second prize was given to Mr. J. S. Wood of Nyborg, Denmark. This exhibit, called the "allotment hive," was a marvel of workmanship, for 10s., but to this must be added its freight from Denmark, which on the point of cheapness prevented it obtaining the first prize to which it was otherwise most certainly entitled. The capacity of this hive is too small for our climate; it is only sufficient to contain eight frames, 10 by 8 inches, but the wonderful pains that had been taken to secure the bees from the inclemency of a high latitude was worthy of all praise. The sides, bottom, and top of the hive were formed of straw 1½ inch thick, well cornered with wood; behind was a shuttered window, and the whole hive covered externally with wood, a good roof surmounted all. In this hive it appeared to us that necessary warmth and ventilation is perfect, and if it could only be supplied in England at anything like the marked price, with some modifications to suit English taste, it would become the hive of the day. A more substantial, better made, low-priced hive was never seen. The same exhibitor sent a three-storeyed hive made after Berplesch. It was made in the same substantial manner as the last described, and it was, indeed, even more weather-proof, being 8½ inches thick of straw.

A two-storey hive received from Baron Ambrosy of Hungary also showed some good economical workmanship, but the arrangement of the frames—i.e., removable only by drawing-out behind, seemed to our English taste most inconvenient. The frames are arranged broadside to the front, so that to take out the eighth frame all the others must be first removed. The Baron Ambrosy is one of the largest bee-keepers in Europe, having two thousand stocks in these hives. One would think gentlemen with such extensive practice would soon discover the best hive.

In Class 6, for the best and cheapest skep for depriving purposes, the first prize was awarded to Messrs. Neighbour & Sons; second to Mrs. Pagden. But for good workmanship nothing could compare in this class with a dome hive, also from Denmark. It was not for competition, as there was no provision for supering. The straw work was as hard as a board, the moulding and sewing of the hive perfect, and at the marked price of 2s. its sale in England would be limitless. The same exhibitor also sent another straw hive called the horizontal hive; it is used on the heaths and moors of Jutland, laying on its side. It was of a most peculiar vase or bottle-shape with a wide

mouth, which the bees close as they like. The collection of hives altogether was most interesting and instructive.

The Association offered a prize of £2 for the best species or variety of honey bees capable of cultivation in England, other than the Ligurian or black bee. Messrs. Neighbour & Sons exhibited a stock said to be Cyprian, and another of Smyrnan bees. The Judges pronounced one lot to be mongrels, the other was undistinguishable from Ligurians, but the prize was allotted to Messrs. Neighbour conditionally on their producing a certificate from Mr. Frederick Smith of the British Museum of their identity; in default the prize to go to Mr. Hunter for Hungarian bees exhibited by him, which according to the French "L'Apiculteur," are famed for their docility and easy appeasement when disturbed.

Perhaps the most interesting things in the miscellaneous department were the honey-extractors. Mr. Cowan exhibited three, all of which were good and much admired. The prize went to No. 160, called the Rapid: this was the only machine which could clear both sides of the comb without removal. At its marked price, £2 10s., it soon found a purchaser, as did, indeed, nearly all the machines exhibited. No. 158, the Cottagers', cost only 25s., and did its work effectually. The Amateurs', at 85s., was the most compact of the whole, not being much larger than an ordinary pail, and with such a machine portability is a great point to consider. One extractor would be enough for a village, and either of Mr. Cowan's exhibits could be easily carried by a boy. An American extractor exhibited had some good points, but was too large for English use. The little power required to set the framework in motion was certainly rather astonishing. In the classes for drone traps, feeders, fumigators, and supers we did not notice any striking novelty; but in that for new inventions calculated in the opinion of the Judges to advance the culture of bees there were some very curious and ingenious things. Foremost amongst them was Mr. Cheshire's arrangement for making embossed wax guides in position. By the aid of this little affair, costing only 2s. 6d., every frame in a hive can be furnished with guide combs, embossed and fixed ready for the bees to work on, in ten minutes. Embossed plates, gauges, and smelters are all superseded by this apparatus, to which a silver medal was awarded; as was also one to Mr. Hooker for an ingenious wooden block for making frames. The bronze medallists in this class were Mr. J. S. Wood and Mr. Carr, the first for an apparatus for laying wax guides, now scarcely required when Mr. Cheshire's is to hand; the other for queen cages slightly modified from those used by Mr. Carr for many years. By what reasoning the Judges arrived at the conclusion of this being a new invention we are at a loss to discover. Mr. J. S. Wood also sent a straw-pressing machine for making straw hives, and a novelty in the shape of wax queen cages, with moulds to make them. This cage is made somewhat like a thimble; the queen is to be put within, and after pricking air holes and the top closed it is put into the hive. The bees gnaw out the queen, which takes them many hours, by which time they have become accustomed to their future sovereign. Mr. Hunter exhibited some simple hive-supports for open driving, by the use of which both hands are at liberty and the upper hive is prevented from slipping; also benzolized wax paste for forming guides and cementing decoy combs like Mr. Wood's smelter. For the former purpose it is superseded, but will be found still useful for the latter. The prize for the best MS. lecture on bee-keeping was awarded to Mr. W. Hunt. We presume the Committee intend to print this for circulation.

Now turning to the honey classes—the prize of the day, £5, for the largest and best harvest of honey in the comb from one stock of bees under any system of management. Grandly among these exhibits stood a magnificent octagon glass super containing 86 lbs. nett of splendid honey exhibited by Mr. George Fox of Kingsbridge, Devon. By its side stood a small straw skep, the hive containing the bees which produced the work, and a written description of their progress. But no prize was awarded; and on inquiring why we heard it said that the Judges did not believe such a hive could contain sufficient bees to fill such a super. Allowing the Judges to be conscientious in their award, we fear here they made a great error. Mr. George Fox is well known as a reputable gentleman, famed for obtaining large supers; and before coming to a decision, which was tantamount to a charge of fraud against one of our oldest and most esteemed contributors, at least it was the duty of the Judges to make some inquiry. If the Committee would have their reputation for fair play stand good it behoves them to call upon the Judges for an explanation of their award if they have not already given one, and see that justice is done to an old and respected bee-keeper. The first prize was awarded to Mr. Cowan for two supers, 80 lbs. nett, which, setting aside Mr. Fox's, fairly deserved the position obtained. Competition was not great, and second, third, and fourth prizes should have been won by something more worthy. Among straw supers of honey there was nothing of transcendent merit, and in ordinary seasons they would have been out of the race. Mr. Cowan and Mr. Rusbridge showed some very good wood supers in Class 11, but the latter had a suspicious white-



to witness the event when it takes place under the normal conditions of the hive. That they do fight and destroy each other was demonstrated by Huber, and his views are corroborated by a practical bee-keeper and accurate observer, Mr. R. Golding, who describes the combat which he witnessed, the clergyman of the parish being also present. The account is given in the shilling bee-book, a valuable little manual, now unfortunately out of print. At the same time it is remarkable that a disabled queen never has the appearance of suffering and distortion which the workers when stung exhibit. May it be that the venom from a queen's sting is of a less acute nature, or does the constitution of a queen resist to some extent the virus of the poison?

That a princess at liberty does destroy other princesses in their cells was also proved by Huber, and I have witnessed the process in an observatory hive from which the old queen had led a swarm. Having no intention of swarming again, the bees permitted the first-hatched princess to open the side of the remaining royal cell. Its destruction occupied about two hours, the bees around offering no opposition, and when the immature young queen was fully exposed the victor retired, leaving the workers to remove the royal nymph.

It is agreed by apiarists that one queen only is allowed to remain in a hive, but that to this rule there are exceptions, apparently when the old queen is superannuated and ceases to lay eggs. My impression has always been that supernumerary queens have been disposed of before the reigning sovereign takes her flight. But this year my observations in regard to this fact have puzzled me, and perhaps some of your apiarian readers may be able to solve the mystery. I will explain the difficulty.

Number 4 hive was determined to swarm with its young queens. Its owner was determined they should stay at home, and after each attempt returned the swarm the same evening, capturing the queens, which were required for other purposes. When this was no longer necessary the next swarm was kept off one night and one day, the result being that two mature queens and two royal nymphs not arrived at maturity were cast out. This was evidently the clearance of supernumeraries. Four days afterwards the young queen took her flight, the same day following, when she returned with the evidence of fecundation. Next day about noon there was some crowding and sensation at the mouth of the hive, and a fresh good queen was brought out just dead. It was equally inexplicable that the healthy young queen of the previous day should have died, or that another queen should have existed after the ejection of the two nymphs; and there was no unusual excitement or distress apparent in the bees. Two days after a fertile queen was presented, and left in a cage forty-eight hours, and then admitted to the hive. As nothing was seen of the queen alive or dead the following day, it was supposed she had been gratefully welcomed, and here unfortunately the observations were interrupted, and the hive removed; but a few days later a dead queen was found on the ground under this hive, leading to the inference that the throne had not been vacant nor her services required. The hive is now in good condition, but I have not had an opportunity of ascertaining if it contains brood.—A.

## OUR LETTER BOX.

**VARIOUS (Dark Brahma).**—No. 1 is the best feather. The yellow tinge in No. 2 is very objectionable. When they sneeze you may give bread and ale, and you may also put some camphor in their water. It is an excellent thing at this time of year. Orvè-Cours will not be confined by a fence 5 feet high. They are excellent layers, especially in winter, and their eggs are large. Their chief merits are they do not sit and they will bear confinement.

**FOWLS DYING (A. B. G.).**—Your fowls die of disease of the liver. Where fowls are in low condition changes of temperature will cause it. The same result will follow feeding on substances that are not sufficiently nutritious. Potatoes frequently cause it; we may say always where they form the principal food. We wish you had stated what their food is. The grass run at the back should do much towards keeping them healthy. Feed them on barley meal or ground oats slaked with water morning and evening. You may give them whole corn or household scraps at mid-day. Give no prepared food of any kind, but confine yourself as closely as possible to a natural diet.

**ERRATA.**—In the article last week on "Cups and Entry Fees" read "deceptive" for "acceptive," and "sop" for "loss," and in report of Stamford Show read "raw" for "rare."

**UTTOXETER SHOW.**—Mr. L. Norris, Trumpington House, Cambridge, had two pens of pullets which were highly commended at the above Show.

**BATH POULTRY SHOW (Gena).**—We agree with you in applauding the Rev. G. F. Hodgson for insisting that "an exhibiting reporter should have 'no admittance' until the conclusion of the judging."

**KEEPING PIGEONS (Anxious).**—You can keep ten pairs in perfect condition in a loft 18 feet 4 inches by 8 feet 6 inches, roof 9 feet high, and even a few more pairs if kept very clean. The best flooring is made of hot tar, over which fine gravel should be sifted. When cold another layer of each. We know nothing impervious to rats.

**MR. WOODBURY (A.).**—We do not know if any of his writings will be republished.

**HIVE DEFECTIVE IN HONEY (Wellington).**—Your hive is like thousands of other hives in having no food for the winter. Give it 14 lbs. of sugar boiled

in twelve pints of water as fast as the bees will take it—say four pints of syrup every night. If the hive is healthy in other respects such treatment will make it a strong good stock for next year. Commence at once to feed it.

**KEEPING COOK AND HEN CAWARIES TOGETHER (A Subscriber).**—In a sufficiently spacious aviary cage you may keep a number of birds of both sexes together all the winter, or at least until the turn of Christmas, when those for breeding purposes may be sorted out and the cock birds kept separate. If you intend breeding with the birds the hens may be kept together until pairing time, when you can match them according to the stock you have and as your fancy directs. Of course you would not think of pairing yellow birds together.

**PRESERVING UNRIPE FIGS (B. & W.).**—Take some half-ripe figs, prick them near the stalks, and blanch them. When half cold throw them into cold water, and then drain them; boil some clarified sugar to *perle*, put in the figs, and give them three or four boils with the pan covered closely; then take them from the fire, skim them well, and, having poured the whole into a pan, set it in a stove for the night. The next day drain off the syrup without removing the fruit, boil it up ten or a dozen times, and then pour it on them when no more than lukewarm. On the ensuing day, having drained off the syrup, boil it to *grande perle*; then add the figs, cover the preserving pan closely, boil the whole up once, skim it well, and put it into pots, &c., for use.

## METHEOLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.
1875.	Barom. at 28" at Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at ft.	Shade Tem- perature.		Radiation Temperature.			
Sept.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 22	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
Th. 23	29.700	63.5	61.5	S.W.	61.0	70.5	58.4	19.5	58.5	0.180	
Fri. 24	29.121	54.5	54.0	N.	61.0	58.5	58.5	68.5	58.5	0.775	
Sat. 25	30.148	54.0	53.5	S.W.	59.0	58.5	58.5	85.0	63.0	0.180	
Sun. 26	29.576	66.5	64.6	S.W.	58.5	68.0	58.5	111.1	53.5	0.920	
Mo. 27	29.941	61.1	59.1	S.W.	58.5	58.6	47.5	105.7	41.4	0.014	
Tu. 28	29.708	57.3	51.5	S.W.	58.5	64.5	50.1	109.0	46.2	0.150	
Me. 29	29.739	57.3	55.0	S.W.	57.5	64.1	51.0	106.6	48.4	0.050	
Means	29.961	59.4	56.4		59.0	65.1	58.5	99.2	50.5	1.499	

## REMARKS.

22nd.—Dull and dark nearly all day, and rainy after 7 P.M.  
23rd.—Cloudy and dark all day; heavy rain between 6.30 P.M. and 9 P.M.  
24th.—Dull morning, rain before 10 A.M.; fine after part of the day; lightning at night.  
25th.—Thunderstorm heaviest about 1 A.M.; a dull morning, but clearing off, and fine afternoon and night.  
26th.—Rather dull day; rain after 9 P.M.; wind rising, and very strong at midnight.  
27th.—Fine at 8 A.M.; rather dull forenoon; fine in the afternoon, but the wind still very high; and rain at night.  
28th.—Showery all day, very heavy rain at times, but fine and starlit between ten and midnight.

A dark, dull, cloudy week. Showers more or less heavy every day; very little sun, and temperature in all cases, except the minima, 6° below that of the preceding week.—G. J. SYMONS.

## COVENT GARDEN MARKET.—SEPTEMBER 29.

We have very little alteration to quote this week, except that the glut of common fruit will soon be over. Jersey Grapes are now coming very poor, but good samples of Dutch Hamburgs have taken their place, yet have not prevented a slight recovery in value of English hothouse Grapes. Quotations for Kent Cobs and Filberts are slightly lower this week.

## FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.	
Apples.....	1	0	1	6	Malberries.....	lb.	0	6	1	0
Apricots.....	0	0	0	0	Nectarines.....	dozen	0	0	0	0
Cherries.....	0	0	0	0	Oranges.....	per 100	12	0	20	0
Chestnuts.....	0	0	0	0	Peaches.....	dozen	0	0	12	0
Currants.....	1	0	0	0	Pears, kitchen.....	dozen	0	0	0	0
Black.....	0	0	0	0	dessert.....	dozen	1	0	0	0
Figs.....	0	0	0	0	Pine Apples.....	lb.	0	0	0	0
Filberts.....	0	0	0	0	Plums.....	per 100	12	0	20	0
Golts.....	0	0	0	0	Quinces.....	dozen	0	0	0	0
Gooseberries.....	0	0	0	0	Raspberries.....	lb.	0	0	0	0
Grapes, hothouse.....	1	0	0	0	Strawberries.....	lb.	0	0	0	0
Lemons.....	per 100	0	12	0	Walnuts.....	bushel	0	0	12	0
Melons.....	each	1	0	0	ditto.....	per 100	1	0	1	6

## VEGETABLES.

		s.	d.	s.	d.			s.	d.	s.	d.
Artichokes.....	dozen	3	0	6	0	Leeks.....	bunch	0	4	0	0
Asparagus.....	per 100	0	0	0	0	Lettuces.....	dozen	0	6	1	0
French.....	dozen	0	0	0	0	Mushrooms.....	potlode	2	0	0	0
Beans, Kidney.....	dozen	1	0	2	6	Mustard & Cress.....	punnet	0	2	0	0
Broad.....	dozen	0	0	0	0	Onions.....	bushel	0	0	0	0
Beet, Red.....	dozen	2	0	4	0	pickling.....	quart	0	6	0	0
Broccoli.....	bunch	0	2	1	0	Parsley.....	doz. bunches	2	6	4	0
Brussels Sprouts.....	dozen	0	0	0	0	Paranips.....	dozen	0	0	0	0
Cabbage.....	dozen	0	0	0	0	Peas.....	quart	1	0	1	0
Carrots.....	bunch	0	0	0	0	Potatoes.....	bushel	2	0	0	0
Capiculus.....	per 100	1	0	2	6	Radishes.....	doz. bunches	1	0	1	6
Cauliflower.....	dozen	0	0	0	0	Rhubarb.....	bunch	0	0	0	0
Celery.....	bunch	1	0	2	6	Salsafy.....	bunch	1	0	0	0
Colewortis.....	doz. bunches	2	0	4	0	Scorzonera.....	bunch	1	0	0	0
Cucumbers.....	each	0	0	0	0	Seakale.....	basket	0	0	0	0
pickling.....	dozen	1	0	2	6	Shallots.....	lb.	0	0	0	0
Endive.....	dozen	1	0	2	6	Spinach.....	bushel	2	0	0	0
Fennel.....	bunch	0	0	0	0	Tomatoes.....	dozen	2	0	0	0
Garlic.....	lb.	0	0	0	0	Turkeys.....	bunch	0	4	0	6
Herbs.....	bunch	0	0	0	0	Vegetable Marrows.....	doz.	1	0	2	6
Horseradish.....	bunch	4	0	0	0						

## WEEKLY CALENDAR.

Day of Month	Day of Week	OCTOBER 7—18, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
7	TH		68.7	45.4	56.6	13	46	28	45	49	42	23	49	9	12	280
8	F		61.7	42.0	51.8	14	6	21	5	33	3	35	10	9	12	281
9	S		60.7	42.4	51.5	16	6	19	5	47	8	54	11	10	13	282
10	SUN	20 SUNDAY AFTER TRINITY.	61.6	46.3	52.4	17	6	17	5	5	4			11	13	283
11	M	T. A. Knight born, 1758.	61.7	42.4	52.1	19	6	15	5	19	4	16	1	12	18	284
12	Tu		59.3	41.4	50.8	21	6	13	5	31	4	39	2	13	18	285
13	W	Twilight ends 7.4 P.M.	60.7	41.8	51.3	22	6	10	5	48	4	2	4	14	18	286

From observations taken near London during forty-three years, the average day temperature of the week is 60.6°; and its night temperature 36.0°.

## A FEW CHOICE BRITISH PLANTS.—No. 1.



THE beauty and utility of hardy herbaceous plants being now recognised, it requires only a very slight extension of the same principle to include some of our British plants in the same category, for many of them when viewed impartially and pitted against some tender exotics will be found to put to shame our patronage of the one and neglect of the other. It is true there are some of our prettiest wild plants not the easiest to cultivate, but others, I should expect, may be made to grow in most ordinary situations. I therefore make no apology for calling attention to a few old favourites of mine. Some of them I have been estranged from for nearly half a century, but I expect they still continue to bloom in the same unobtrusive manner they did in the times when Briton, Roman, and Saxon claimed them as theirs. I will point out a few gems in the wild-plant way which deserve more general attention, and the search for which would form a fitting subject for young gardeners when out for a holiday.

*Menyanthes trifoliata* (Marsh Trefoil or Buckbean) is a sub-aquatic plant, with glaucous leaves rather fleshy, the stem robust rather than slender, flowers mostly white, but with a beautiful pink fringe, giving it a most handsome appearance. It is not by any means common in the south of England, but in Scotland our tourist friends will most likely find it plentiful in wet marshy places and on a peaty soil, very often difficult of access on account of the wet nature of the ground, and not unfrequently in a half-floating state. I believe the plant possesses a bitter property common to others of its fellows, and has been used extensively by the poor people, amongst whom it is known as a cure for certain diseases. This plant is easily discovered where it exists; for, notwithstanding its prostrate habit, its pale green leaves look so different from other herbage around it. Its flowers appear in July, and remain in beauty about a month. I have only met with it on peaty marshes, and it may possibly be in company with Sweet Gale and other plants of a like kind.

*Parnassia palustris* (Grass of Parnassus).—This very pretty plant and flower, somewhat resembling a Ranunculus, is, like the last, only found on wet marshy pastures or bogs, but not exactly floating on water, as the last-named is sometimes found, but it is very often hidden by the coarser herbage by which it is surrounded. It is a low compact-growing plant, in habit resembling some of the Primulas with a different class of foliage; the flowers, however, are its main points of beauty, and they are very attractive, being white, neatly fringed, erect, and on stalks that enable them to be conveniently gathered for nosegay purposes. I do not know whether attempts have been made to cultivate it, but it deserves to be where a site suitable for it is obtainable, for, apart from its poetic name, it is very pretty.

*Narthecium ossifragum* (Lancashire (or Bog) Asphodel).—This is a neat little plant with upright spikes of yellow

No. 752.—VOL. XXIX., NEW SERIES.

flowers. It is both pretty and ornamental, and, like the preceding, is found growing on wet marshy ground, but not always confined to soil of a peaty character, for I have met with it on a hungry wet clay where but few things would grow. It is seldom more than 6 inches high, but might possibly attain greater proportions if cultivated; but it is likely to be driven out of cultivation as drainage progresses, unless it fixes its abode on some of those inaccessible wastes where it is safe from invasion.

*Erythraea, centaurium*.—This beautiful annual yields to very few in point of habit and appearance, and it is surprising it is not more grown. It is frequently met with in rather poor pasture land where its fine corymbs of beautifully rose-coloured flowers, equalling the Sweet-william in size, are often met with. As a wild plant it is more easily cultivated than many, especially those requiring some special position not always available. In florists' catalogues it still retains a place.

*Pinguicula grandiflora*.—My acquaintance with this plant is a long one. I recollect finding it in great abundance on a piece of waste clayey land near the margin of a sheet of water in the north of England. Its singularly-formed blooms of a beautiful bright blue with a prominent spur are elevated on neat little footstalks sufficiently above the fleshy foliage to give it an interesting appearance. The foliage somewhat resembles that of the smaller leaves of the ordinary Ice-plant (*Mesembryanthemum crystallinum*), a little more curled at the edges, perhaps, and the plant is of lowly growth. It is only recently that attention has been called to the plant as one to which the term carnivorous has been appended; of its capability that way I can give no opinion. This is a beautiful plant worthy of cultivation.

*Hydrocotyle vulgaris* (Marsh Pennywort).—This is not by any means a florist's plant, but is more plentiful than either of the two last mentioned. It is of low growth, and its rounded leaves supported by stalks in the centre instead of at one edge, as the majority of foliage is secured, is attractive in its way. It is found on marshy peaty places, whereas the *Pinguicula* is more common on bare places on clayey ground, where it grows freely.

*Butomus umbellatus* is a highly ornamental plant, found only in ditches and ponds and other wet places, where its prettily-marked florets, united, as its name implies, into an umbel of considerable size, give it a claim to notice which many exotics really do not deserve. As an ornamental plant it is easily transplanted, and a site suitable for it is easily obtained, as an ordinary ditch even if in the full sun will be found to suit it, provided there be sufficient water. It is reported to be scarce in Scotland, and I do not know that it is plentiful anywhere except in certain localities, but it is well worth cultivating. Those having a piece of ornamental water would find this occupy much less space than the more princely Water Lily, of which more anon; its foliage is also not to be despised, and has sometimes been mistaken for some of the Sedges, which often accompany it in its growth.

*Comarum palustre*.—This is not a water plant, but one

No. 1110.—VOL. LIV., OLD SERIES.



confined to peaty marshes, where its brown-coloured flower-heads rise to the height of a foot or more; and though not possessing the stamp of a flower likely to attract the flower gardener, it is somewhat singular and ornamental.

*Lysimachia nummularia* (Creeping Loosestrife).—This plant is now-a-days worked into higher company than it formerly was expected to keep, not unfrequently being met with in the parterre, and even advanced to the dinner-table. It is a hardy useful plant, and one well adapted for trailing over unsightly objects, or even for training into formal lines, its prostrate habit rendering it available for many purposes. I am not very sure whether the distinctions between this species and *L. nemorum* are sufficiently conspicuous to prevent their being confounded with each other in cultivation; both are, however, British plants, and one if not both are plentiful, usually being met with on shady banks by the sides of ditches. It flourishes well amidst the smoke of towns—in fact it is a town plant of the first order of merit.—J. ROBSON.

### A VISIT TO ARKLETON.—No. 2.

GRAPES are the most popular, and justly so, of all dessert fruits. In quality, appearance, and long season of use they have no rivals. Grape lore is therefore ever interesting to the great community of gardeners and garden lovers. In no branch of gardening are greater efforts made than in perfecting the cultivation of the Vine, and in no branch have greater successes been achieved. There are two distinct modes of Grape-growing, or rather there are two distinct purposes in view—two different goals to be reached. The one is the production of a few immense bunches to win triumphs at public exhibitions; the other is the securing of a large number of medium-sized bunches for everyday table use to win approbation at home. In both these phases of culture it is alike honourable to succeed. But although there are those, and they are certainly the majority, who do not require sensational bunches of Grapes, there are very few, if any, who do not desire to know the conditions under which such Grapes are grown, and the treatment which is given to produce them. Especially is this so when it is considered that he who can produce bunches of unusual size can also, by simply increasing the number of bunches on the Vines, obtain bunches of any lesser size that may be required.

The condition of a Vine to produce extraordinary examples of Grapes must be in the first order of health; its constitution must be sound, and its food and treatment must be in all points correct. A Vine in this state will produce superior Grapes, and large or medium-sized bunches according to the number it is permitted to bear. Hence the grower who can produce large can also produce small bunches, while he who can only produce small bunches cannot perfect larger bunches because his Vines are not in a condition to produce them. In noticing, therefore, the practice of a man who has, as a series, obtained the heaviest Grapes which have probably ever been produced, is to notice a practice which is capable of answering the requirements of all who covet healthy Vines, for, these provided, they can regulate the size of their bunches by the numbers they permit the Vines to carry. That this is sound logic the Arkleton Vines sufficiently attest, for more perfect Grapes of almost every sized bunch, except small, it would be difficult to find than is produced in the vineries of this small but celebrated garden.

Mr. Dickson grows the following varieties:—Black Hamburgh, Mill Hill Hamburgh, Golden Hamburgh, Black and White Frontignan, Black Prince, Muscat of Alexandria, Archerfield Muscat, Tynningham Muscat, Mrs. Pince's Black Muscat, Madresfield Court, Lady Downes', and Syrian, adding also the newer varieties as they are introduced. It is not necessary to particularise the condition of each variety, for all are grown to a high state of excellence, and the Vines are cropped the second year, each carrying seven or eight bunches. There were not to be seen a few sensational bunches only, but examples of splendid table quality, alike fine in berry, colour, and flavour. The Black Hamburgh varied from 3 lbs. to 7 and 8 lbs., and were worth going a journey to see; and the crop of Mrs. Pince's Muscat of the same weights is altogether a remarkable one, but too heavy in all probability for the berries to colour perfectly to the stalk. This is a common and perhaps the only fault of this valuable late Grape.

Wherever Grapes of exceptional excellence have been produced, the first question asked is, How are the borders made? I can tell how the Arkleton Vine borders have been made, and

in doing so I fulfil a promise made to Mr. Blackburn on page 121, No. 724, February 11th, 1875. But it is not the borders alone that possess the virtue of producing these wonderful Grapes. The border must be considered as only one element, and be judged in connection with general management and some natural advantages, the latter being the geological formation of the district and the heavy rainfall. The last might be considered a disadvantage by many cultivators, but as read by the light of the first it must be regarded as of great moment. A depth of 5 feet of rain falling from the clouds and soaking the borders would frighten many dry-district gardeners, and induce them to cry out for shutters; but Mr. Dickson, instead of covering the borders to shoot off the rain (which is really 64 inches), supplements the amount with liquid manure. It is no use anyone shaking his head doubtfully, for the fact is stated, and in that fact lies one secret by which these wonderful Grapes have been produced. But let me not advise any thoughtless attempts at imitation. It is easy to pour on a Vine border 5 or 6 feet of water, but not so easy to put a gravel bed under it for drainage. But now to the borders. A few and plain words are only needed to describe them.

In the first place they rest on several feet of gravel, so that the important condition of perfect drainage is provided by nature. The inside border is 14½ feet wide and 3½ feet deep; the outside border is of the same width and the same depth in front, and 2½ feet deep at the edge next the walk. The Vines are planted inside, and have free access to the outside border. The components of the soil are fibry loam of medium texture taken from an old sheep pasture, and to every twelve cartloads of turf were added two cartloads of old lime rubbish, one cartload of horse droppings, one cartload of charcoal, and 5 cwt. of inch bones. The turf was fresh from the field, mixed well with the other ingredients, and wheeled into the border without lying exposed. That may be taken as a first-rate recipe for a Vine border. It is not necessary to discuss its merits, for the Vines have given their testimony and I shall be silent. I will next briefly notice the inside management.

It must be remembered that Vines so strong as are these require a long summer period to mature their wood. Vines which are less vigorous may be started late and grown cool, and the wood will become solidified; but these require a season both long and warm, and the more so, probably, on account of the many dull days which are a characteristic of Eskdale.

The Vines are started about the end of February. In the first place the border is given a good soaking with warm water from a cistern in the houses. The temperature of the houses is about 45° by night and 50° by day, rising 10° by sun heat; and as soon as the Vines show the first leaf the heat is increased 5° more, and kept gradually rising until the Vines are coming into flower. At that stage the temperature is about 65° by night and 70° by day, rising 10° with sun heat. In the summer Mr. Dickson is not afraid to let the thermometer rise as high as 95° about shutting-up time, say between four and five o'clock, but he would consider such a heat dangerous in the early part of the day. Mr. Hunter's practice of giving air Mr. Dickson quite agrees with—that is, admitting a little air in front instead of at the top or back of houses, which most gardeners are in the habit of doing. He has always found it very difficult to keep up the desired heat at night with top air on, but none whatever with front air. Throughout the whole growing season, unless when it is frosty, or cold cutting winds are blowing, he leaves 1 to 4 inches of air on along the whole front, and whenever the Grapes begin to colour a little air is left on at both front and back by night.

The border is annually dressed with about 3 inches of turfy loam and inch bones, which tend to keep the roots near the surface. A great number of people are of the opinion that when once they have made a good border it requires no more than a little water. That may do for ordinary Grapes; but to grow first-class Grapes Mr. Dickson says we must be liberal with bones and liquid manure.

During the growing season he gives the borders a good watering with liquid manure taken from a tank in the stable yard. This dose is generally given at three different times before the Grapes begin to show colour, and as soon as the Grapes are all out he gives a further good watering, as he thinks it is very unfavourable to the growing of fine bunches to keep the border dry in winter. His opinion is that if good and efficient drainage is provided, and the soil everything that can be desired, that it would be no easy matter to give Vines too much water in the growing season.



In submitting to Mr. Dickson the opinion as to these huge Grapes being produced by chance he replied—"I am aware that a considerable number of people are of the opinion that these monster bunches are produced by chance; but if that be so what is the use of all the heavy manures used to produce big Cabbages, big Leeks, and many other things in the vegetable kingdom? And again in the animal world, why are flock-masters at so much expense for feeding material to produce fine fat sheep, cattle, &c. I have very little faith in the word chance, and none whatever in it having any connection with the growing of large bunches of Grapes." His achievements during his whole career of Grape-growing fully justify him in the expression of that opinion.

The general arrangement of the gardens at Arkleton as to flowers, plants, and vegetables, as well as Grapes, is evidence that skill is devoted to every department.

All who are interested in Grape-growing will join me in thanking Mr. Dickson for his willingness and generosity in permitting his practice to be detailed for the benefit of others. Like Mr. Hunter he has shown true greatness, not only in growing great Grapes, but in telling others how to grow them.

His chief points of practice may be summarised thus—perfect drainage, generous soil, abundant supplies of water, heat, air, cleanliness, and raising his canes from healthy and vigorous stocks.—J. W.

#### NOTES BY THE WAY.

WEYBRIDGE.—The skies were not propitious on the day that, in the fulfilment of an oft-repeated invitation, I went from Cooper's Hill to Weybridge to visit the garden of my friend Dr. Henry Bennet, so well known to all horticulturists by the descriptions of his charming garden at Mentone which have been given in the Journal, and to scientific men by his valuable books. When we left Cooper's Hill it bid promise of finer weather than we had had in the morning; but by the time that we reached "The Ferns" the rain descended in such a steady downpour that it was the pursuit of garden-seeing under difficulties indeed; and yet I saw much that interested me, and heard and saw much that was new to me. What shall I say of "The Ferns" itself? Simply this, that every nook and corner of the house is a study in itself; that everything is in accordance with the most refined taste, and that gems of art in pictures, china, bronze, &c., meet the eye in all directions. Long residence abroad has fostered a taste which gives a foreign aspect to the rooms in their elegance and arrangement, while English comfort has not been forgotten; and I shall not be guilty, I hope, of intruding on the sacredness of the home when I say he has a most willing coadjutor, whose own room is a perfect gem. I suppose it is known to many of the readers of the Journal that sixteen years ago Dr. Bennet, overdone with the demands of a wide and important practice, had to seek in the genial climate of Mentone a relief from the cold and damps of an English winter, and that he may literally be said to go and return with the swallows. As soon as October begins there comes that restlessness for a southern clime which it is said the swallow shows, and when there is prospect of brighter skies he wends his way back to find, as the swallow finds, his nest prepared in England for him; and in both places he carries out his favourite hobby. We have read what he has done with a barren rock at Mentone and have seen the views, which must give but a very faint idea of the beauty of his garden; and while of necessity there can be nothing of the kind at Weybridge, yet he is not one to rest content with mere commonplace gardening, but must be trying to mark out something new.

Dr. Bennet believes it to be possible to utilise Palms for the summer decoration of the garden even in England, and has been trying it with the Date Palm, Chamsrops, &c.; and certainly nothing could well be more vigorous and healthy-looking than those he had plunged out in his garden this season; yet for eight months in the year they are kept in a coach-house, and for the remaining four are plunged out of doors. Through this coach-house he has carried a flue from his greenhouse, and this gives sufficient heat to exclude the frost. He has done this fully believing that we lose a great deal of heat in our ordinary heating apparatus which might well be used to good purpose. This year he purposes putting a glass side to the coach-house, so as to give the plants more light. But here is an instance of how seeming impossibilities may be overcome. Most persons would have said, "But I have no place for Palms,

my houses are full." Not so Dr. Bennet: he seizes on a very unlikely place and bends it to his purpose.

"The Ferns" abuts on the wood or forest which stretches down to Bagshot, and Dr. Bennet has rented a few acres contiguous to his residence, where he has carried out another experiment worthy of noting. All the ground here is covered with Heather; but as we know, Heather grows tall and straggling, and to obviate this he has cut it down with a hook close to the ground, so that a close and beautiful carpet of Heather clothes his land, and next year this will be mown. It will be at once seen how very charming this must be when in flower, the whole ground covered with its brilliant blossoms as closely set together as the blades of grass upon an ordinary sward. Then he had to run out a kitchen, &c. Under ordinary circumstances we know what an ugly adjunct this is to a house with its slate roof. But this would not suit the ideas of taste prevalent at "The Ferns," and so it was made with a flat roof, and over this roof has been raised an iron trellis, on which are trained Roses and other climbing plants of a deciduous nature; so that it will form in summer a charming arbour, while, as the leaves will have fallen in winter, it will not engender any dampness in or about the house.

The plants grown in the houses are principally for decorative purposes, and hence are not grown in collections. In the large house I noticed some Tomatoes, and was told that they had been so grown for years, not for the sake of the fruit, but because the strong smell of the leaves kept the wasps from the house. Have any of our readers any experience of this matter? It would be a simple plan indeed if it were found generally successful. These were a few things I noted in a hasty run through the garden. I hope at some future time, when Jupiter Pluvius is not in the ascendant, to see more of it.

Being at Weybridge I could not omit a call at a garden whose owner has made it famous—Mr. George F. Wilson. Alas! he was not at home, so that I could only see how much he has added to his herbaceous garden, and what gems it must contain in spring and early summer; that he is still as earnest as ever over Lillies, and that his orchard house is, as he has ever made it, productive and satisfactory. The trees were all out of doors. Peaches, Nectarines, &c., had borne their crop, while the Pears and Apples were full of fruit. Surely such an orchard house as this is worth having.—D., Deal.

#### OLLERHEAD'S ROSE HURDLE.

On entering my present situation I found a quantity of isolated Roses worked on Manetti stocks, and planted in small beds along each side of one of the principal walks in the flower garden about 6 feet from the walk; each plant was trained-up two rough stakes about a foot apart, with pieces of tar cord from one stake to the other. The idea occurred to me that something could be done to improve their appearance, which led to the hurdle which I will now describe.

The sides of the hurdle are made of half-inch round iron rods 5 feet high, with claws or feet 1 foot long, and braised together at top and bottom with rods three-eighths of an inch thick and 18 inches long. The space between these uprights is laced with diamond network made of No. 9 bright wire, 5 inches apart, and twisted round the side of the hurdle, and where the wires cross each other they are tied together with lacing wire, so as to make the whole of sufficient strength to resist any pressure in tying strong shoots, &c.

These hurdles are of simple construction, and can be made by any country smith at a small cost, and where stakes have to be purchased, as in our case, they will soon pay for themselves—being durable. They will last for years, and where such things are required they certainly have a far neater appearance than a lot of rough stakes.—JAMES OLLERHEAD, *The Gardens, Wimbledon House.*

#### A TRIP TO LONDON.—No. 2.

##### THE CRYSTAL PALACE GARDENS.

It is with a keen sense of enjoyment that one turns from the unfinished aspect of the grounds of the Palace at Muswell Hill to those of the stately structure at Sydenham, which are constantly increasing in richness, beauty, and interest. The shrubs, Conifers, and other trees are annually assuming more prominence. Mark how charmingly the *Deodars*—flourishing in rude health and vigour—relieve the formality of the south wing by the bright greening which presents itself so agreeably in the symmetrical outlines of the trees and the graceful sweep

of their pendant branches. Ample repose is also afforded by the bold semicircular sweep of lawn along the outer margin, of which a chain of circular beds of Dahlias and Hollyhocks impart an air of finish and dignity that is very grateful. The scene is a perfect one, with every feature in fullest harmony, denoting a master hand equally in its original design and in its present treatment, affording a useful lesson to all who may wish to embellish the surroundings of a lofty building of formal aspect. Nor is this all, for after regarding this particular point as so worthy of admiration for itself alone, we are com-

pelled to recognise its peculiar fitness and unity with those parts of the grounds adjoining it. Let us glance at them.

Proceeding from a central part of the terrace garden towards the rosery, we leave for a time the gayer masses of bright colour of the ordinary bedding type, and pass along winding walks among masses of shrubs where the flourishing groups of Rhododendrons, enlivened just now with a lovely fringe of *Lilium lancifolium rubrum*, are as remarkable for the graceful irregularity of outline as for the pleasing effect of the deep green foliage in contrast with the bright and more chequered

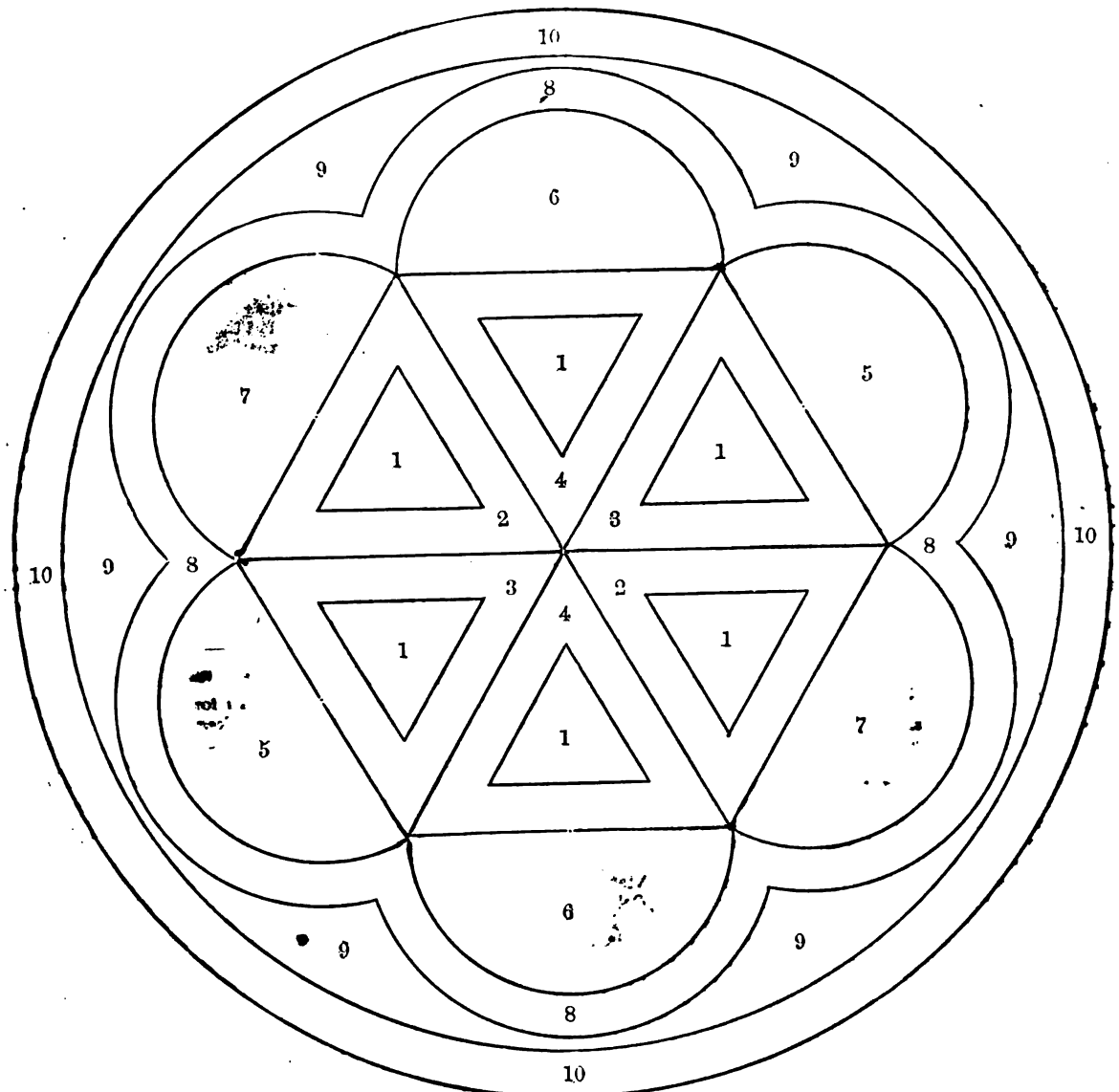


Fig. 68.—CARPET BED AT THE CRYSTAL PALACE.

1. Coleus.
2. Lobelia Blue King.
3. Tagetes.

4. Ivy Palargonium Duke of Edinburgh.
5. Cerastrum.
6. Alternanthera paronychioides.
7. Pyrethrum Golden Feather.

8. Alternanthera versicolor.
9. Mesembryanthemum cordifolium variegatum.
10. Echeveria secunda glauca.

aspect of the terraces. Beyond these shrub groups on the slopes below the terraces are large beds treated in a singularly bold and successful manner by mixing the showy *Tritoma* with dwarf Dahlias, Phloxes, Hollyhocks, and a dwarf form of the yellow *Helianthus*, all in large bold clumps and sufficiently apart to avoid confusion. Prominent dispersed clumps of Hollyhocks and Dahlias next attract the eye, and then comes the Deodar lawn on the one hand, and dense masses of shrubs of an irregular but pleasing outline on the other; beyond which the rosery, bright with its belting of gay beds and its graceful

surroundings of undulating lawns, curving walks, masses of shrubs, and noble Conifers, meets the eye precisely at the point where its effect can be most fully appreciated.

One pauses here, for the scene is well worthy of contemplation and study, and the question involuntarily arises, Why is this particular part of the garden which one has visited so many times always as fresh and interesting as it was at first? I think the answer is found not simply in the keeping of the grounds or the planting of the beds, to all of which due praise must be given, but in the contour and designing of the grounds

themselves. There is nothing tame here, and therefore it is always enjoyable, simply because the surface is so beautifully undulating. It is just a little bit of Sussex in miniature, toned down, refined, and embellished by the hand of art.

Many of the flower beds were excellent in every respect—soft, rich, and harmonious in colouring, even in outline, and well balanced; but on the whole there was a deficiency of growth and dulness of colouring that detracted considerably from the general effect, causing many of the beds to lack that brilliancy and high finish for which those of last year were so remark-

able. The *Alternantheras* had evidently suffered from the trying effects of the ungenial weather, for they were wanting both in the free growth and high colouring of former seasons. It has been asserted that improper soil is the cause of this, which is a mistake, as it is undoubtedly owing to the baneful effects of an unkindly season, always especially trying to tender plants when growing in such an exposed situation, and even in the sheltered grounds at Battersea a great deficiency of colour is this year perceptible in plants of this class.

Of notable beds a deep purple *Viola* springing-up among

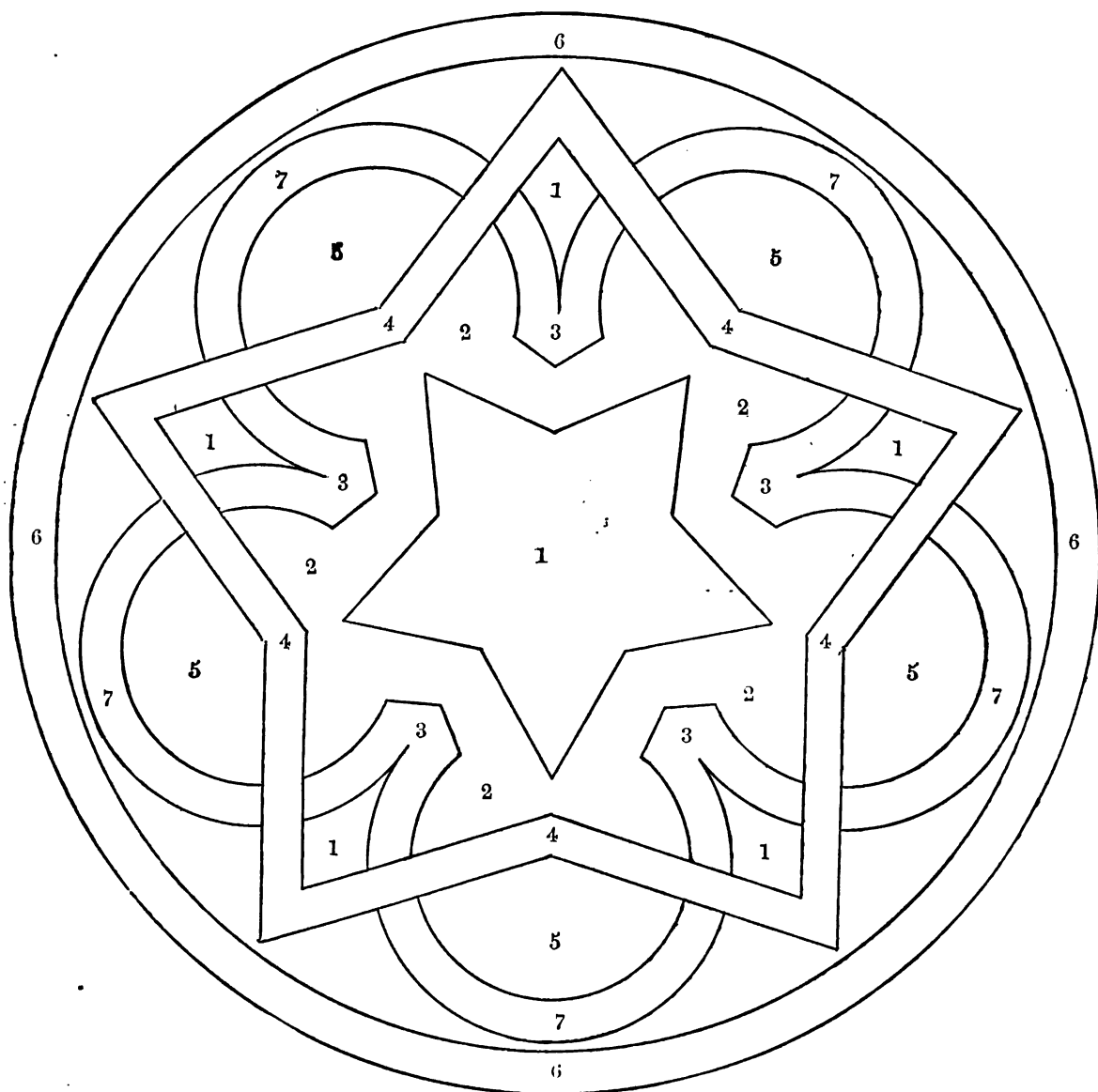


Fig. 69.—CARPET BED AT THE CRYSTAL PALACE.

1. *Tagetes*.

2. *Ivy Pelargonium Duke of Edinburgh*.

3. *Alternanthera versicolor*.

4. *Pyrethrum Golden Feather*.

5. *Alternanthera magifica*.

6. *Echeveria secunda glauca*.

7. *Sedum glaucum*.

white-edged *Pelargoniums* was very fine. The soft scarlet flowers of the *Geraniums* were left on, and rightly so, for nothing could be more charming than the soft yet sprightly effect of such a combination and judicious intermingling of two plants so dissimilar in form and habit of growth. In the chain beds upon the terrace the alternating masses of various shades of pink, white, scarlet, with mottled groups, were very fine, the pink being especially telling—more so than usual, perhaps, from the superabundance of greenish yellow *Pyrethrum* forming a continuous edging to the whole of these beds, and which I venture

to suggest might advantageously be replaced by the soft grey *Gnaphalium lanatum*. I was glad to see my old favourites, Purple King *Verbena* and Lady Plymouth *Geranium*, still in full force and really quite as effective as ever. This clinging to old favourites is a praiseworthy trait on the part of the managers of public gardens. Space should, of course, be given to all meritorious novelties, but it should be done cautiously.

The *Pelargoniums* on either side of the central terrace steps were in fine flower, and I came upon splendid large masses of a bright rosy crimson variety surrounded by a fine belt of

the old pink Christine, followed by another of white-edged Geranium with the flowers kept picked off; then came a rich purple Viola, very fine, with an edging of Golden Pyrethrum—two charming beds, so perfect when I saw them that one could not but regret that the blossom was not as durable as the bright-toned foliage of the carpet beds. Of other good-colour combinations there were lovely chequered masses of *Verbena venosa* and white-edged Geranium, not kept separate but mingling irregularly but very beautifully together; circles of Iresine Lindeni alternating with wide bands of *Gaussia splendens variegata*; rich circles of deep crimson Geranium edged with the grey Gnaphalium, and some grand masses of Amaranth Geranium.

The rosery borders had a pretty design of rich circular masses, around which swept brilliant curved bands which were continued throughout each border. The colouring was bold in character and in exceedingly good taste; it consisted of white, pink, blue, grey, yellow, green, deep crimson, and scarlet.

The carpet bedding comprised many intricate geometrical designs, most of which were fine examples of this justly popular style of bedding, and Mr. Thomson may be congratulated upon the skill in designing and exquisite taste in colouring which they so fully exemplify. An attempt at an imitation of butterflies is, I think, a failure and a step in the wrong direction. So long as carpet bedding partakes of the character of mosaic work it most worthily takes high rank among art works, but when it is diverted into a mere pictorial delineation of insects or other figures it sinks from its high position and becomes a mere toy. Designs of two of the most effective of the beds with the mode of their planting accompany these notes.—EDWARD LUCKHURST.

## ROYAL HORTICULTURAL SOCIETY.

OCTOBER 6TH.

APART from the quaint forms and varied colours of a collection of Fungi, the edible and nutritious qualities possessed by one section and the poisonous properties of the other impart to an exhibition of them material for both study and admiration. One cannot but be struck with their attractive appearance, and regret that the different species—their nature and properties—are so little understood. It is only by bringing collections before the public that knowledge on this generally-unknown branch of vegetation can be disseminated: hence the exhibitions which are occasionally provided. The display on this occasion was only small, Mr. James English, Epping, Essex, being the only exhibitor of note, and who evidenced great industry in collecting and arranging his numerous specimens; he received the whole of the awards. A very fine specimen of *Polyporus sulphureus* was exhibited by Mr. Burnett, gardener to Mrs. Hope, The Deepdene, Dorking; it was of the shape of a half-blown Camellia flower, a foot in diameter, and of a deep sulphur colour. It had been taken from an old Yew tree. Mr. Beech, Castle Ashby, also exhibited some curious specimens.

**FRUIT COMMITTEE.**—Henry Webb, Esq., in the chair. Mr. Beale of Messrs. Carter & Co. sent fruit of an American Grape, supposed to be Catawba, which had been ripened against a wall in the open air. A Raspberry was sent from the Society's Garden at Chiswick called *Surpasse Merveille de Quatre Saisons Rouge*. There was also the white variety of the same, and the fruit was large and handsome. Mr. Richard Smith of Worcester sent fruit of the Worcester Pearmain, a fine handsome Pearmain-shaped Apple of a brilliant scarlet colour. It was awarded a first-class certificate as a valuable market and highly ornamental Apple. Mr. R. Harvey of Bury St. Edmunds sent a seedling dessert Apple called St. Edmund's Pippin, a middle-sized somewhat conical Apple of a pale brown russet colour, with a tinge of brown on the side next the sun. It was rich in flavour, and resembled in this respect the Golden Russet, but is much earlier than any other of this class. It was awarded a first-class certificate. Mr. William Paul sent a seedling Apple called Beauty of Waltham, a large round Apple of the shape of Blenheim Pippin, but quite distinct. If it is a kitchen Apple, and has a white and tender flesh. Mr. J. Murray, Hall Stile Cottage, Hexham, sent a seedling culinary Apple, which was not of sufficient merit to be recommended. Mr. James Clark, gardener to Rev. A. D. Stackpoole, Writtle, Essex, sent fruit of a Pear called Berwick Place Seedling, which is *Grosse Oulabasse*, and also a seedling Apple, which had nothing remarkable in its character. Mr. Mills, market gardener, Turnham Green, sent fruit of Winter Windsor Pear which were unripe. Mr. Peter Grieve sent a seedling Pear, which was unripe, and was referred till the next meeting.

Mr. Francis Dancer of Little Sutton sent fruit of *Fondante d'Angleterre*, a small juicy pyriform fruit, with a thin sweet juice, and which has the property of not decaying at the core.

He also exhibited Madame Treyve and Bourré Hardy, which were of very fine flavour.

Messrs. Carter & Co. sent fruit of their Green Gage Tomato. Messrs. Hurst & Son of Leadenhall Street sent fruit of Hanham's Champion Tomato. Mr. William Heath, gardener to J. Blackwell, Esq., Newton Lodge, Middlewich, sent a seedling Melon of medium size, oval, fine yellow colour, and well netted. It is red-fleshed, and was inferior in flavour through being over-ripe. Mr. Owen Thomas, The Gardens, Drayton Manor, Tamworth, sent a seedling Melon of large size, round, yellow, and slightly netted. The flesh is very white, and it has a large seed cavity. It was of good flavour for the season.

A very large and interesting collection of Apples and Pears, consisting of three hundred varieties correctly named, was exhibited by Mr. William Paul of Waltham Cross, to which a letter of thanks was awarded, and which was of such merit the Committee recommended to the Council the award of a medal. Mr. Francis Dancer of Little Sutton sent a very fine collection of Pears and Apples, which were remarkable for their size and high culture, to which a letter of thanks was awarded. The Committee recommended this collection also for a medal to the recognition of the Council. Mr. Robert Fenn of Woodstock received a letter of thanks for a fine collection of his seedling Potatoes.

**FLORAL COMMITTEE.**—W. B. Kellock, Esq., in the chair. The Council-room presented quite an ornamental appearance on this occasion, Mr. Bull's group of plants being a show in themselves. The *Oretons* were especially in fine condition—viz., *Majesticum*, *Weismanni*, *Imperiale*, *Volutum*, and *Spirale*. These distinct and fine varieties were very effective. The group also consisted of *Cycads*, *Dracenas*, *Palms*, and *Ferns*, with a good plant of *Anthurium crystallinum*. A vote of thanks was awarded for this collection, and a medal was recommended to be given.

Mr. B. S. Williams exhibited an attractive group of table plants, consisting of *Palms*, *Ferns*, *Orchids*, *Dracenas*, &c. *Oncidium tigrinum* had a fine spike of thirty flowers. In bloom also were *Miltonia Morelliana*, a very dark-coloured species; *Cypripedium Harrisonianum*, and *Panoracium speciosum*. *Bertolonia guttata alba punctata* was in exceedingly good condition. A vote of thanks was awarded for the collection.

Mr. Wills, Onslow Crescent, exhibited twelve plants of *Celosias* in a variety of rich colours. The plants were in 8-inch pots, were 8 to 6 feet in height, and deservedly received a cultural commendation.

Mr. Douglas, Loxford Hall, exhibited a bouquet of the single white Macartney Rose, for which a vote of thanks was awarded. It is especially suitable for furnishing vases.

Messrs. James Veitch & Sons had a first-class certificate for *Brahea filamentosa*, a Palm somewhat similar to *Chamærops Fortunei*, but covered with filaments; it is very distinct and ornamental. A cultural commendation was awarded Messrs. Veitch for *Renanthera coccinea*, carrying a fine spike of fifty flowers. The same firm also exhibited *Psecatorea lamellosa*, *Masdevallia Harryana*, *Exacum seylanicum*, *Areca Dicksonii*, and *Artocarpus*; and a like award was made to Mr. Green, Botanical Nursery, Holmesdale Road, Reigate, for *Streptocarpus Greenii*, which has previously received a first-class certificate. Mr. George Smith, Tollington Nursery, Hornsey Road, exhibited plants and cut blooms of his new semi-double *Pelargonium Wonderful*. This plant worthily had a first-class certificate awarded at a previous meeting. It is a sport from *Vesuvius*, is even brighter than the parent, is exceedingly dwarf and floriferous, is an admirable bedder, and as affording cut flowers has no superior, if any equal, amongst scarlet *Pelargoniums*. He also exhibited P. George Smith, a blush variety with a salmon centre.

A first-class certificate was awarded to Mr. Croucher, gardener to J. T. Peacock, Esq., Hammersmith, for *Agave Victoria Regina*. This is a Mexican species which is singularly attractive by its white veins and black terminal spines. This plant received a gold medal at Cologne, and was worthy to have received one at Kensington. Mr. Peacock holds the entire stock save one plant, which he has presented to Her Majesty. A first-class certificate was also awarded to Mr. Noble, Bagshot, for a dwarf variety of *Gynurium argenteum*. It is very distinct with fine compact plumes, and is highly ornamental.

*Thuopsis borealis aurea variegata* was exhibited by Mr. Noble, Sunningdale Nursery, Bagshot, and was requested to be seen again by the Committee. This is a very promising sport, at once decided in its variegation and apparently vigorous in habit.

*Masdevallia Harryana* came from Mr. Stevens, Trentham; *Tropæolum James Russell* from Mr. Russell, gardener to Sir G. Maclean, Pendell Court, Bletchingley.

Mr. C. Turner, Slough, had a first-class certificate awarded for *Pompon Dahlia Dove*, a perfect bloom, creamy white with pink tips, and very charming. A vote of thanks was also awarded Mr. Turner for a box of twelve varieties of bouquet Dahlias.

These blooms were of perfect form and in a great variety of colour. A vote of thanks was also awarded for thirty varieties of large blooms, The Clown, Capt. Webb, Samuel Plimsoll, and Barmid being varieties of great merit. A plant of *Ficus Cooperii* bearing fruit was sent by Mr. Peacock, Hammersmith.

A collection of Fir sprays bearing cones was sent by Rev. G. T. Boscawen, Lamorran, Cornwall. The collection consisted of over twenty species from the common Larch to the Wellingtonia, and from the gigantic cone of the Redwood, 18 inches in length, to the small coral-like berry of the Yew. Some of the specimens were from the Mariposa group, California. The collection was highly interesting and ornamental.

## PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 3.

**RANUNCULUS.**—The Double Persians have the individual flowers  $1\frac{1}{2}$  to 2 inches in diameter, and are as lovely in form as any flower which the florist delights in. They, from their compactness and symmetry, are valuable as cut flowers, but they lack scent, and so do Camellias; neither are all Roses remarkable for rose odour. One *Ranunculus* at least is scented, the Double Persian. Ophir d'Or, yellow, black-spotted; Dollard, white, violet-tipped; Darius, creamy white; Hector, white, tipped rose; Dædalus, crimson; Gloriosa superba, crimson; Fireball, vermilion; Rose surpassante, rose; Ciel Noir, black; and Jaune Supreme, yellow—are all good, and for cutting are as useful in May and early June as the Rose, which unfolds its beauty when the *Ranunculuses* are over. Turban *Ranunculuses* have not the fine imbricated form of the Persian, but have Peony-formed flowers, which are larger and flower earlier. Hercules, white; Merveilleuse, yellow; and Romana, scarlet, will be sufficient of this family.

*Ranunculuses* require deep, rich, moist soil, well pulverised and well aired—exposed to the weather by frequent stirring. The Turban varieties should be planted from October to January, and the Persian from January to March, 2 inches deep, and the roots 4 to 6 inches apart. In severe weather a mulch may be given of litter, partially decayed leaves, or other protective material, removing it before the plants appear. Water during April and May, if the weather be dry, twice a week, and when the flower-buds appear and when in flower every other day or daily, but avoid wetting the foliage. Take up when the foliage is yellow, and store away in dry sand in a cool dry place until planting time. *Ranunculus acronitifolius* flore-pleno has quite charming double white flowers; *R. acris* flore-pleno, double yellow; *R. alexandrinus* with large pure white flowers, are all three well worth a place in a moist position in the herbaceous border, and will produce their flowers in early summer. Though *Ranunculuses* delight in moisture, it is requisite that the soil be well drained.

**ANEMONES.**—We do not recommend these except for the million. No plant is so floriferous, giving large supplies of flowers; in fact, for a quantity of flowers of varied hues a bed of the single *Anemone* from seed sown in July or early in August will give a large supply of flowers the following summer. The doubles may be planted in November to February about 2½ to 3 inches deep, and 4 to 6 inches apart, affording a protection of partially decayed leaves in severe weather. They like sandy loam enriched with leaf soil or vegetable refuse. Though I do not press the claims of *Anemones*, I shall certainly put forward the double Wood *Anemones* (*A. nemorosa* alba plena) and double rose (*A. nemorosa* rosea plena) as of the most valuable, coming-in in spring when flowers are scarce; and having soft stems they keep fresh some time. Then the fiery brightness, orange scarlet, of *A. pavonina* flore-pleno, with its narrow numerous petals, blooms in spring; the more stately *A. japonica*, with its rose flowers; the still finer *A. japonica* alba (Honore Jobert), with the chastest of white flowers, at the end of September onwards, is truly grand as a plant and in a cut state, and ought to have a place in every garden; and even as a pot plant for the conservatory during the early winter months. *A. japonica* and varieties require rich deep loam, and if moist all the better.

**IRIS.**—Growers of the *Iris* have from May to July flowers not put to shame by comparison with *Cattleyas*; the gorgeousness of their colours and the extreme beauty of their form and marking, at once render them the Orchids of the garden. Many are very fragrant, particularly *I. reticulata*, the first to flower, and *I. persica*. The scent of the *Iris* is comparable only to *Violets*.

The *English Iris* (*I. anglica*) in great variety attains a height of about 18 inches, and produces large flowers of various

shades of blue, purple, and lilac; alba grandissima being a fine large white. They flower in July.

*Spanish Iris* (*I. hispanica*) is smaller in all its parts than the *English Iris*, but the colour of the flowers is more dazzling, and they are quaint in form, and the marking is very distinct and varied. The *Spanish Iris* flowers in June. It requires to be planted in autumn about 6 inches apart and 8 inches deep, well-drained light loam being most suitable, though it will grow anywhere except in shade.

*Japan Iris* (*I. Kämpferi*) has what may be termed flat flowers, the petals very broad, giving very nearly a circular form. The foliage consists of rather narrow, sub-erect, lanceolate leaves, spreading in a fan-like order, the flowers being from 5 to 7 inches across. Their colours are blue, purple, rose, salmon, orange, and white, with stripes, blotches, and veins that baffle description. These *Irises* do best in a peaty soil, and if overlying a cool bottom which will afford moisture without stagnation they are at home; in fact, a strong loam growing *Rhododendrons* well will grow this *Iris* perfectly.

*German Iris* (*I. germanica*) commences flowering in May and continues until the bulbous *Irises*—i.e., *Spanish* and *English*, come in, and continues often with those. The varieties are very numerous, and in various colours—blues, purples, yellows, reddish shades, and white, with reticulations, venations, bronze and metallic hues, which give much beauty to the flower, no flower improving so much upon inspection as the *Iris*. The *German Iris* will grow anywhere, forming admirable subjects for the margins of ponds or artificial waters, or in the herbaceous border of strong soil or light. In the open parts of woodland walks spots should be dug and the *German Iris* planted by the thousand. The beauty of a breadth of them is grand for foliage, and gorgeous when in bloom; and what a grand subject is the *I. pseudacorus* in the mass in swampy spots!

*Crimean Iris* (*I. pumila*) flowers in spring or early in summer, and occasionally again in the autumn. It does well in *Rhododendron* beds, and in front of herbaceous borders or the base of rockwork. *I. pallida*, lavender blue, possesses a fine odour; *I. sibirica* has small flowers and narrow drooping foliage; besides those are many other species of *Iris* useful for affording cut flowers. One of the many great claims of *Irises* to favour are their succeeding well in the impure atmosphere of towns, not suffering from dust and smoke.

*Iris persica* does well in pots, potting in September, allowing a space the diameter of the bulbs between them, and half that from the sides of the pots. They should be covered about an inch deep, making the soil firm about them, and give no water until the foliage appears, and then only a little, increasing it with the growth. The pots should be plunged in ashes in a cold pit or frame, admitting air abundantly, but protect from rains, and in severe weather afford mats as protection in addition to the lights. In February, or earlier, remove them to a light airy position in a greenhouse or other structure where they will be gently brought forward. Its flowers are white tinged with pale blue, the interior velvety purple, striped orange and purple spotted, and sweet.

The *Peacock Iris* (*I. pavonia*) has white flowers with three blue blotches, one on each petal. It requires frame or cool-house treatment. Suitable for pot culture may be mentioned *I. chinensis* (Tiger *Iris*), starry red flower, spotted and striped black; *I. iberica*, white, marked with reddish purple; *I. reticulata*, violet, blotched yellow; *I. ruthenica*, blue-purple, netted white; *I. stylosa*, blue, yellow-blotched; *I. susiana*, bluish, tinted brown and netted with dark brown lines; and *I. tuberosa* (Snake's-head *Iris*) with large singular flower, interior petals green, the exterior petals velvety black. They need to be potted in autumn, placed in a frame, and introduced to gentle heat in January or February. In the frame or pit the pots should be plunged in ashes, which will afford generally sufficient moisture, but they are not to be allowed to become dry. **NOTE.**—The *German* and other *Irises* are named under the heading "Bulbs," but they, as everybody knows, are herbaceous plants, and I wish to explain that they are introduced here to make the continuation of their blooming season complete.

**IRIS.**—These, with *Sparaxis* and *Babianias*, are to the spike-flowering *Orchids* what the larger flowers of the *Irises* are to *Cattleyas* and *Lælias*, subjects with flowers of the richest and brightest-spotted, streaked, blotched, flushed, and "tigered" in a manner that cannot fail to please.

All three require similar treatment, which is of two kinds—viz., pot and outdoor. When grown outdoors the bulbs should

be planted in a south border along the front of a greenhouse, and 6 inches deep, the soil being well drained; if the soil is to be prepared, three parts sandy fibrous loam, one part each leaf mould, sandy peat, and silver sand, well incorporated, answers for pots or borders. The bulbs should be 2 or 3 inches apart. A covering of dry leaves, with a little soil over them to keep the leaves stationary, or still better is a straw shutter or a framework of laths thatched, as they throw off the wet as well as afford protection from frost, and are easily withdrawn in mild weather and replaced in cold. Planted in October *Ixia* will bloom in or soon after May, and continue some time; and another batch planted in January in a warm, sheltered, dry spot, raising the soil, if the ground be wet, a foot high, and the bulbs put in 4 inches deep, and mulched with 2 inches of partially decayed leaves, or cooco refuse, and with shutters to throw off heavy rains or snow and to use in severe weather, will lay the foundation for a display in June or July and to August of the finest flowers for cutting that ever graced a border. For pots put five bulbs or six in a 6-inch pot, well drained, the bulbs an inch deep, the soil made firm about them, and after potting place them in a cold frame plunged in ashes, which will afford some moisture, and do not water until the foliage appears, when they may be moved to the shelves of a greenhouse or light airy position, then water carefully at first, increasing the supply with the growth. They will flower nicely, but they will not be as fine as those flowering outside. Varieties are very numerous, and all are good.

*Tritonias* are good alike in borders or grown in pots with cool treatment. The habit of growth is that of the *Sparaxis*, but the bloom differs in being self-coloured. The varieties are becoming rather numerous; parti-coloured flowers are being added, as in Brilliant, orange, dark centre, spotted, and Longiflora roses, blush, white and rose, which add no beauty; but *Eclair*, scarlet, and Prince Alfred, white, are good additions; still the best of the family are *T. crocata*, orange, and *T. aurea*, orange yellow. The former blooms earlier, and grown in pots blooms in June or earlier, according to the temperature, and *T. aurea* comes in at the middle of July if brought forward in a greenhouse. Outdoors they flower after those under glass, and give a succession of blooms for a long time, commencing in August and continuing until frost. A dozen bulbs in a 10-inch pot, potted early in October, watering moderately until the growth appears, but keeping moist as they are more or less active alway, increasing the supply of water with the growth, letting it be copious when in free growth, and brought forward in gentle heat, keeping in a cool house until January, then introducing to gentle moist heat, with a light airy position but plenty of moisture. *T. crocata* will flower during the spring and early summer months, and if kept from frost and brought on in a cold pit or house it will flower later and keep up a succession until those in the open ground come in. Half a dozen bulbs may be grown in a 7-inch pot, and in potting let them be about 1½ inch deep, those in the open ground about 3 inches deep, and afford a mulch of leaf soil in winter over the clumps. The soil named for *Ixia* suits *Tritonias*, or turfy loam will grow them well with the addition of a third part of vegetable soil and a sixth of sand. They like a moist soil, but well drained.—G. ASHBY.

#### NEAR AND AMONG THE ANTEDILUVIANS.

More satisfactory is it to me having things congruous about me. I am in search after things old, so I lodge in a terrace with an Anglo-Saxon name—Holme Lea, the Wooded Meadow; and certain is it that the whole region round about was a forest, that is in the time of the ancient Britons, whose name of the place is still retained. They called it *Lym* from the streamlet on the west bank of which it is, and that they termed "y nant Llym," the Rapid Stream. One of the evidences of its forest surroundings is afforded by the submarine trees found abundantly in the lias between Lym and the mouth of the river Char. It was a woody region even in antediluvian times, for on the table before me as I write is part of the branch of an Oak firmly bedded in a slab of lias, that geological formation from whence the Ichthyosauri and other old-world monsters were dug, which now are in the British Museum. The town is built upon that lias, and in walking along the seashore towards Charmouth you may find many remains of animals and plants that were alive before the Flood. I may be permitted to dwell on one as not irrelevant to your columns, I mean the Coprolites. Their name signifies petrified dung, and certain it is that they are the excrements of the Ichthy-

osauri; they are found within the fossil skeleton of that animal. They are shaped like a kidney Potato. I have one before me; it is nearly 4 inches long, fully 2 inches broad at the widest, tapering to each end, and 1 inch thick. It retains the marks given to it when passing through the animal's intestines, as well as the undigested scales of the fish on which it subsisted.

Coprolites were analysed in the laboratory of the London Manure Company, and proved to contain in 100 lbs., besides a



Fig. 70.—*Lobelia urens*.

small portion of unimportant ingredients, 56 lbs. of phosphate of lime, 14 lbs. of phosphate of iron, and 21 lbs. of carbonate of lime (chalk). These ingredients are what were to be expected, as we know the food the Ichthyosauri and other marine antediluvians fed upon—that food was fish, and in many coprolites, as well as that I have described, are found their scales, and of some so undigested that M. Agassiz at once pronounced one to have been from the body of the *Photidophorus limbatus*. The bones and scales of fish contain the phosphates and carbonate found in coprolites. They are so abundant in places on this seashore that they might be mistaken for scattered Potatoes. This abundance—and it prevails in other



maritime districts—renders coprolites a valuable ingredient for artificial manures, and their manufacturers grind them to a powder and mix them with other fertilisers, for those phosphates are found in cultivated plants.

It is a curious fact that our field and garden crops are being nourished by the excrement of an animal produced before the Deluge. Some estimate may be formed of the abundance of fossil animals in the lias by the fact that Sir Henry de la Beche distinguished more than 180 species; and how numerous was one of the species, the Ammonite, is apparent to any observer. I have a flat mass not 5 inches square and 1 inch thick, that contains at least a hundred small Ammonites. This fossil, known among old geologists as the Cornua Ammonis, has that name preserved corruptly among the poorer classes here, for they call it "Cornomals." Heavy fragments of some that must have been 9 inches in diameter are used to keep doors from closing.

The peculiarities of the plants of the district are no less noteworthy than those of its fossils. One instance for the present must suffice—"The Flower of the Axe," or, as the country people near Axminster call it, "The Flower." Until the present week I never heard of this member of our national Flora, and, therefore, was ignorant that it is found nowhere but on one small spot at Kilminster, near Axminster.

For all my relative information, and the outline portrait accompanying this note, I am indebted to the Rev. Z. J. Edwards's excellent little volume on the Ferns of this vicinity.

The plant is *Lobelia urens* (Stinging Lobelia). It was unknown as a British plant until Hudson published the second edition of his "Flora Anglica" in 1778. He described it as having an erect stem, the lower leaves rounded at the end, scalloped; upper leaves lance-shaped, toothed; flowers violet blue. It is a perennial, flowering in July, August, and early September. On Kilminster Common this Lobelia has a range of about a mile in length, and is no place more than a hundred yards in breadth. In some fields that have been recently cultivated near its usual haunt it has appeared abundantly on the newly turned-up soil. Hudson states that it was first discovered by Mr. Williams Newbery, a noted herbalist, in the vicinity of Axminster.

Since writing the above I have visited Kilminster Common, and, though the last day of September, found many plants of the Lobelia still in flower. Then, as on many other similar occasions, I entered into the feeling that made Linnaeus fall on his knees by the side of the first Furze bush that he saw clothed with its golden flowers. Kilminster Common was entirely mantled with them; the bushes were dwarf, and above them stood forth the blue-flowered stems of the Lobelia. They are 2 feet high, and 9 inches of their summits bear the flowers, alternate, and half an inch apart, so that the drawing copied from Mr. Edwards's volume does not approach to doing the plant justice. The leaves are alternate, the lower being 4 inches long, and 1 inch wide where broadest.

The soil of the Common is stony but wet from numerous springs; yet the water is not stagnant, for the Common is on a hill about 300 feet above the Axe, and facing the south-west, so that when the Lobelia is transplanted to neighbouring gardens it can only be kept in moderate vigour by copious and unremitted waterings.

Kilminster Common is on the road from Axminster to Honiton, and the habitat of the Lobelia is about six and a half miles from the town last named.—G.

### SUMMER FRUITS.

It is true, as stated by Mr. Luckhurst on page 177, that Rivers' Early Prolific Plum stands out prominently in any collection, but I must have Rivers' Early Favourite along with it. These Plums ought to be on every garden wall in the best position they can be placed in, and in the borders too, as pyramids and bushes wherever there is a square yard to be found. I have endeavoured to impress this on many cultivators, especially those in humble circumstances.

Some years ago at an horticultural exhibition held the first week in August, within a few miles of the sea in north Yorkshire, I exhibited a dish each of Rivers' Early Favourite and Early Prolific Plums from the open wall. It was with difficulty that I could persuade those connected with the exhibition that they were grown outside, for they were quite sure they had been grown under glass.

There is another early Plum, *Précoce de Tours*, which in years gone by used often to be met with, and was the earliest

Plum we then had, and I believe the parent of Mr. Rivers' rightly-named Favourite. It is but seldom met with now. I saw many years ago at Old Thornville, the residence of Colonel Thornton, a fine old place twelve or fourteen miles north-west from York, trained on a wing of the mansion a fine old tree of *Précoce de Tours* with one of the heaviest crops of fruit on I ever saw. This was at the latter end of July, and the fruit was ripe and in use. The favourable spring and fine summer no doubt had much to do with the fruit being ripe so early. I have often wondered why fruit trees are not more numerous. I am of opinion that they ought to be as numerous as Thorn bushes. We all know how beautiful our fruit trees are when in bloom in the spring and early summer, and then in autumn we have the pleasure of storing the fruit. In planting it is very important to know which kinds of fruit came the soonest into a bearing and profitable state, and amongst Plums I know none which will pay their expenses more quickly than the sorts I have named.—F.F.

### DIONÆA MUSCIPULA.

I HAVE a plant of *Dionæa muscipula* which is thriving well. It recently threw up a vigorous new leaf, and one morning I found this new leaf tightly closed with the end of an insect's leg just showing between the edges of the leaf. I noticed a brown mark extending from the edge of the leaf nearly to the base of it. I feared that my grand new leaf was going to decay, and I wondered what the food could be that had evidently disagreed with it. A few mornings since the problem was solved.

The leaf opened, and it then appeared that *Dionæa* had captured a wasp, and the brown mark was produced by the sting of the insect. I have not removed the wasp, and he lies in his trap with his sting fixed into the flesh of his captor. It is curious to note the effect of the wasp's revenge on the plant that has made a meal of him.—GEORGE C. STENNING, *Beaulieu Parsonage*.

### SALES OF FRUIT AND VEGETABLES AT COVENT GARDEN.

In Covent Garden Market is transacted the largest fresh fruit and vegetable business of any market in the world, it being the grand centre of distribution not only for London and its suburbs but Great Britain. It receives contributions from the chief fruit-bearing regions of the world, and vegetable products from France, Spain, and Portugal, as well as from more distant quarters. Of fruit, schooners built for the purpose, and faster sailing steamers, are constantly bringing hither supplies from the tropical, intertropical, and temperate zones of America, from the Channel ports of France, the shores of the Mediterranean and Adriatic, and of Northern Asia. Of late years the purveyors of Covent Garden have entered into active competition with the city importers, warehousemen, and dealers in Pudding Lane and its vicinity, fruit and vegetables being now consigned on a large scale directly to them. The Covent Garden dealers have their agents at the leading foreign shipping ports, many of whom dispatch representatives from time to time to the interior fruit-growing districts to report on the crops, and forestall, by advances and agreements to purchase, the native dealers. As crops mature or arrive at port for shipment, a large part of the correspondence between the agents abroad and the Covent Garden dealers is carried on by telegrams, for in these days of competition early advices are essential, the character and amount of prospective supplies exerting an important influence on prices. By large capital intelligently applied, by maintaining an intimate conversance with all the influences calculated to increase or lessen foreign supplies of market garden produce, taking at the same time into account home contributions, these dealers may be said to rule over our supplies, and to some extent to govern prices. It is by the completeness of their organisation in connection not only with producers and intermediate agents, but their connection with the host of retail dealers throughout the country, that the statement holds true that of fruit and vegetables "the best come to London." The tendency year by year has been to vest these large transactions in a few hands, or at least in a few families. To allow of the enormous trade carried on, it has become a necessity to extend the transactions of the market proper to the short streets branching from it north and left, the upper floors and cellars of these affording storage, whilst the ground floor is

given up to samples of stock and sale transactions. But in securing the requisite space for transactions, not only are neighbouring hotels, bars, and coffee-houses resorted to for bargaining, but as in Minning and Mark Lanes, the pavements

and roadways themselves are at times made available, and whole waggonloads of produce are sold by private contract or by auction around.

To be impressed with the absorbing power of Covent Garden

FIG. 71.—THE NEW GLASS-AND-IRON ROOF COVERING, COVENT GARDEN MARKET.

Market one should visit it at early morn to be in time for the arrivals. The noise and stir gradually increase, like a quiet sea being lashed into a storm. From each point of access come all sorts of vehicles, from trucks to farmers' heavy carts and railway contractors' waggons. The members of the vegetable kingdom in season make a huge display on the southern side, and choke up Great Russell and James

Streets, whilst fruit, of which the air is redolent, and the delicate vegetable products of the hothouse and garden, such as Cucumbers and Artichokes, find their way to the northern colonnade and the piazza. Above the crunching of the heavily-laden vans and the tramp of multitudinous feet are heard the voices of porters, market dealers, greengrocers, costers, all on the alert. There is a veritable babel of tongues, of which only

those initiated in market lore can catch the full significance. Covent Garden, like the Cattle Market, Smithfield Meat Market, Billingsgate Fish Market, and Leadenhall Market, has a language of its own. What with the throwing down of huge piles of Cabbages, and crates and boxes, the fillings of baskets, and the rushing of everyone to and fro, unpacking from laden vehicles and repacking in empty ones, the storing in shops and cellars, the depositing of produce on the flagged areas, the incessant endeavours of drivers of vehicles to make headway or to retreat from their positions, the exclamations and oburgations from the hundreds upon hundreds moving in a labyrinth of wheels and hoofs, the cries of the porters in the crowd to clear the way, the excitement of the scene is all but bewildering. Amidst all this uproar one hears in every direction the chink of money. The negotiations are carried on with marvellous rapidity—each seller seems to deal with half a dozen persons at once; yet buyer and seller, such is the throng and the number of counter currents, are like persons bargaining in a heady stream, sometimes in the very act borne out of sight of each other. Thousands of pounds are changing hands; the produce of hundreds of acres being bartered away whilst we gaze. A moment suffices for the bargaining of the retail dealer, and, in fact, with so many competitors he has no choice but to be "sharp and quick." Equally prompt are those who purchase on a wholesale scale, these frequently, through the advantages of capital and the terms they can obtain, supplying the shops of large districts, and this promptly. Thus one man has secured almost the monopoly of the Watercresses by greengrocers in the western central district, being able to obtain them on better terms than they could themselves, not to speak of the saving of time. A large assortment of vegetables and fruit will be selected, purchased, and carried off by a vendor in less than a quarter of an hour.

Up to nine o'clock A.M. the price of produce of the same description is uniform, as fixed by the market dealers. To this price all purchasers must conform; and thus business is facilitated—a consideration to buyers who have little time to spare. The early part of the day is necessarily that most convenient to a large number of greengrocers and other retail dealers. They are supplied before the local trade has well-nigh commenced, and the prices charged by them to customers fluctuates, as a matter of course, with the terms they have been able to secure. It does not follow that this early pricing is satisfactory to the market purveyors or dealers. It is largely influenced by the state of the weather and the general amount of current supplies. If it is desirable to move off a large quantity of any produce, the terms will be lower than otherwise. It would scarcely be interesting to our readers to give particulars of the conclave which result in the determination of the figures to be demanded up to nine o'clock; nor need we explain the interest all dealers have in uniformity. In addition, through custom and common interest, it is a regulation which none dare break. In this period many of the costers as well as shopkeepers are supplied, and purchases are made for the country, to be carried off by early trains.

After nine o'clock all dealers are free to name their own prices, and no one can have visited Covent Garden without noticing the variation in ticketed figures in different localities of fruits of the same quality. Similarly a variation necessarily extends to the sales in larger quantities, whether by private arrangement or by auction. Auction sales are frequently held by various dealers throughout the day. The early sales will, to some extent, have fixed metropolitan prices, and the object of buyers now is to make good bargains. Every regular frequenter is known to the several classes of purchasers, and it is a prime consideration with costers and others to wait the thinning of competitors. The departure of a score of well-to-do greengrocers will accordingly be patiently awaited, in the knowledge that their presence serves to keep prices up, and that they cannot afford to stay. It is a sort of time duel that is being fought, for on neither side can the holding-off be kept up for ever. Many of these auction sales are advertised by slates hung up against a pillar, or in the case of the shipment of foreign fruit being telegraphed a day or two before the stock arrives. There is, in addition, a sort of freemasonry among those interested in market sales, by which information as to goods to be disposed of would seem, without any formal previous notice, to become common property. At these auction sales the produce, as we have stated, is frequently sold in the street waggons as it stands; while of stored fruit

and vegetables opportunity is given for previous inspection, whether above ground or in the subterranean caverns. With foreign and home-boxed fruit all the boxes are sometimes opened as offered for sale; and so, at times, with hampers, &c. It is at these sales the costers mainly buy; as in the city, so here, they constitute an important class of purchasers, being the virtual purveyors of two-fifths of the metropolitan population. It is to be remembered, too, that they buy some of the best fruit and vegetables in the market. These sales give occasion for abundant displays of character, though they are conducted on the whole with a quietness foreign to the city fruit and vegetable sales. Each sale has different stages. There is the reserve price with which it sets out, and which, as soon as demand flags, is sure to be abated. Then again, the best lots are, as a rule, sold first.

The most amusing sales, those which differ in character from all the others, are the latest. What is sold must, as a rule, be sold, whether to clear stock, and so make way for to-morrow's arrivals, or "sorted out" because the "signs of decay" or just "going off" have become apparent. For the first reason we have seen the choicest of Apricots, Plums, and foreign Cherries, Green Gages, and other fruits thus disposed of. A mixed company assembles, including costers, who operate on their own account, and others who hold money for investment that has been clubbed together by half a dozen others, with fruiterers of poor neighbourhoods, whose business will be carried far into the night, and whose customers are not too particular for quality, so that they get cheapness and quantity. The buyers have not a penny to lose; the costers particularly are a shrewd set, capital judges of what suits them, and well capable of "sorting stock." Hemmed-in by heaps of "empties" that serve as tea-tables or smoking couches to a number of wearied market servitors who have borne the burden and heat of the day, we join, not without some hesitation, the aforesaid group, which clusters on the flagged area by one of the closed shop windows. From below the shutters a long narrow panel is removed, showing three grim faces belonging to men whose business is evidently subterranean. The conversation is the genuine staple market talk, a compound of business hints, suggestions, and asseverations as to current prices and qualities of fruit, interspersed with rough social amenities, such as hearty slaps on each others' shoulders and backs, the utterance of broad jokes, followed by loud shouts of laughter at the expense of some butt of their rude wit. Such as it is, there appears to reign a general good-fellowship.

Presently a small thick-set man, brown-coated and grey-trousered, with felt hat of the Vandyke style, mounts a box, memorandum book and pencil in hand. Instantly the three heads at the panel disappear, and from the dark cavernous mouth three boxes of Cherries are pushed out on the pavement.

"Now, what's the bid?" asks the auctioneer, "see, they're prime." One of the boxes is open and a good look is taken.

"Three—four—five—six" (meaning 6s. for a given number of boxes), come like a rattling volley.

Auctioneer gives a hard defiant look, but the fates have ordained that nothing more shall be offered, and the entry of the name of the successful bidder in the auctioneer's memorandum book is followed by successive acceptances of like lots at the same figure.

With small as with large auction sales excitement is apt to grow, chiefly evinced in the sarcasms passed on the condition of the fruit by artful bidders desirous of checking the bids of others, in conflicting claims for the last bid, and sundry personal remarks, which assume, by their pointedness, that the speakers have an intimate acquaintance with each other's domestic and business affairs. To represent the wordy conflicts whilst the auction goes on, we would have to be aided by as many stenographers as, according to Dean Stanley, attended on St. Anthony. In some of these conflicts each unit of the lot seems to become judge and witness when two contestants claim to have bought each the same lot, stretching their necks like cranes towards the auctioneer and vociferating till they are hoarse.

The auctioneer, careful to offend none, looks at all, hears all, and apparently believes none. To carry conviction *pro* or *con*, the buttons of his coat are laid hold of, his arms are pulled by huge brawny hands, whilst ever anon a palm floats over his book to prevent him making an entry before he hears the full case out. In the end the contestants divide the spoils.

"What have we next?" is the cry of the auctioneer, "Oranges."

These pass rapidly to the costermongers, and at an incredibly low figure.

Next come Strawberries.

"I haven't heard you bid," says the auctioneer, accosting a costermonger in a solicitous tone.

"Can't take jam," remarks the peripatetic dealer, making all but the auctioneer laugh.

The lots go at an average of 2s. the dozen baskets (such as in their prime were being sold at the time for 6d. each).

"Let's have the Peaches," says the auctioneer to his men, who, in handing the boxes, rip off the covers. "You can't go wrong. Come, hurry up."

The price reserved is half a crown for three boxes, and some few lots bought at this figure; the rest go cheaper.

"You must give me credit for 6d.," says a coster, aged and decrepid, as he empties the contents of his purse.

"All right," says the auctioneer.

"Ah," responds the coster, with a twinkle in his eyes, "you know me; you'd give me credit for £5."

"Apricots," exclaims the auctioneer. "Bid away, you can't go wrong, surely."

The sale is over; the shades of evening gathering, and Covent Garden, after its fitful day-life, becomes gradually deserted.

It may be well, in conclusion, to trace in a few lines the history of Covent Garden Market. Six hundred and fifty-three years ago (1222) the site constituted part of a garden belonging to the Convent of Westminster, whence the contraction Covent. It devolved to the Crown on the dissolution of the religious houses by Henry VIII., was granted to the Duke of Somerset by Edward VI., and on the attainder of that nobleman again came into possession of the Crown. Edward VI. conveyed it as a mark of royal favour to John Earl of Bedford in 1552, together with a field to the north, termed Seven Acres—whence Long Acre. The property has remained in the possession of the Bedford family ever since. John Earl of Bedford built a mansion in Seven Acres, the square on which the market now stands being the rear garden, and walled. The locality was fashionable, and persons of distinction resided in houses contiguous to the wall. At this time a market was held on the sites now occupied by Southampton and Tavistock Streets, but owing to building improvements the market was transferred to the centre of the garden, which was the signal for the aristocratic inhabitants in the vicinity to seek abodes elsewhere. Vintners, coffee-house keepers, and others, took possession of the wooden houses ranged round, and which at one time had been thought magnificent. The historian Maitland, writing of Covent Garden in 1756, soon after the change, says:—"Things remarkable at present are a magnificent square, wherein (to its great disgrace) is kept a herb and fruit market, two charity schools, one meeting house, a parish workhouse, a cold bath. Hogarth sketches it on an early winter's morning as a medley of tented sheds and hoards, with fires kindled here and there to warm shivering creatures, vegetables collected in heaps lying on the stones or piled in baskets; quarrelsome rakes are issuing from Tom King's coffee-house, a woman is bawling ditties, a quack doctor dispensing his nostrum, and market folks are being served at a stall with rice and milk. To these must be added growers of vegetables and retailers, the whole scene—not forgetting the swords and staves and bob-wig high in the air—making a scene of amusing confusion." The temporary standings were in time made permanent, but years elapsed before these were removed to give place to superior erections.

The market was rebuilt in its present form in 1829-30. It is quadrangular, consisting of a colonnade—north, east, and south—with ranges of shops; a central arcade from east to west, three passages running from north to south, and extensive storage cellars. At the eastern entrance there are capacious conservatories. It is somewhat singular that only in the present year a portion of the wide unsheltered space between the arcade and the southern range of shops has been covered in, an improvement shortly to be extended to the corresponding flagged area to the north. So far from detracting from the architectural appearance, the glass-and-iron roof gives to the market a lightsome appearance previously wanting, and is the more to be admired from its obvious utility. An essential requirement of a good market is abundance of water. This is supplied from an artesian well, which yields 1600 gallons

per hour. The market days are Tuesdays, Thursdays, and Saturdays.—(*National Food and Fuel Reformer*.)

## STRAWBERRY CULTURE.

I THINK "AN OLD SUBSCRIBER" has not read my letter on page 242 with sufficient care and attention, or he would not have found out so many objections to my way of growing Strawberries. Such a formidable host of objections I was not prepared to expect, and as my time is limited I must be excused if I do not notice them all. The first objection, then, that I shall answer is "planting without manure." Well, the fact is my half acre of land where I grow my Strawberry plants is as rich as a compost heap, as least for 12 or 15 inches deep. I have used on this piece of land for the last five or six years from twenty-five to thirty cartloads of manure, and it is consequently in such a high state of cultivation that if I were to omit to use any manure for a twelvemonth my crops would never feel the want of it; and as a proof that my plants have not suffered from "planting without manure," my runners now measure above a foot across them, their fruit buds are formed for next year's crop, and they are so large and forward that some of them are throwing up their flower stalks and bursting into flower. "Planting after Potatoes" is another objection. I again repeat my land is deeply cultivated and manured for Potatoes at the time of planting. They are planted the first week in May, and are ready for sale by the first week in July.

"Taking the runners from each alternate row" is objection No. 5. I do not see what matter it would make if I did, but I do nothing of the sort. I "strike" or root my runners in each alternate row, but I take runners from every plant. My reason for raising my runners in this way is that I find in practice that gathering fruit and striking runners are antagonistic, the runners being trampled to death by the fruit-gathering; and by setting apart every other row for the runners, allowing no person to set foot on this row, I obtain runners at least a month earlier. This I think a very important point, and I am sure my friend makes a great mistake when he objects to so simple and easy a way of securing early runners. Objection No. 6 I pass over, as time will prove what sort of a crop I shall have, but judging by past experience I am led to hope that I shall have a very good one.

But after all the great difficulty with "AN OLD SUBSCRIBER" is to "comprehend" how it is possible to grow 1 lb. of fruit per plant the first season after planting. This is no joke. He is content to wait two years and sometimes three years before tasting any fruit. In reply, I answer it can be done by having the runners rooted early and grown to as large a size as possible during July, August, and September; to plant as soon as the land is ready and the season favourable on land in "good heart," that has been deeply cultivated and well manured. A few of my largest Strawberries this year weighed 2 ozs. each, and I had scores that weighed 1 oz. each. From British Queen, Dr. Hogg, President, and others I could pull thirty Strawberries to weigh 1 lb. I remember reading a short time since of a Strawberry called "Brown's Wonder," that would produce one peck of fruit per plant. Dr. Roden writes to say that "his plants of British Queen this year have produced an average of 8 lbs. per plant, several of the fruit weighing 2 ozs. each." Can "AN OLD SUBSCRIBER" comprehend this?

In conclusion I would offer this advice to all Strawberry growers: Do not rest satisfied until you can produce a good crop of fruit the first season after planting.—W. LOVELL, *Weaverthorpe, York*.

## HOW TO MAKE THE MOST OF A FLOWER-POT.

It has often occurred to me when potting, and seeing the roots of plants winding round the pot in search of food, if their wants might not be specially considered at the time of potting, especially in the case of those plants which of necessity have to be kept in small pots for the decoration of the dinner table, and for fitting into vases, epergnes, &c. To attain the desired result I have for the last two seasons acted as follows:—

After placing the requisite drainage in the pots I procured some fresh cow dung (that from fattening oxen is preferable to that found on pasture fields), and with a broad label besmeared the inside of each pot to the depth of one-third to half an inch, according to the size of the pot. The pots are then put to dry in an airy shed for a few hours, otherwise the wet lining would interfere with the work of potting.

Bulbs of all kinds—Hyacinths, Crocuses, and Tulips especially—are benefited thereby, it bringing out that brilliancy of colour in the latter which is so desirable. Mignonette, Cinerarias, Primulas, Poinsettias, &c., also show, by outstripping their brethren which have not been so treated, that they thoroughly relish it; moreover, it greatly supports all succulent growing plants.

This additional stimulant should as a rule not be given till the final potting, as it is difficult to remove the ball without injury to the roots. In case, however, a plant should have to be repotted, an old table knife should be passed round the pot to cut through any dung still adhering to the pot.

If the pots are required for other plants they must be steeped in water and scrupulously cleaned before using, or the plants may at their next potting come out minus half the roots. I keep, however, all my "cow-dung pots" separate, and only use them for the class of plants above named. I am making experiments with another class of plants, and the result I will state it at some future time.—A. W., *Heighington*.

### GRAPES AT THE EDINBURGH SHOW.

THE correspondents who have favoured me with a reply to my communication in your issue of the 23rd ult. have evidently failed to catch the chief points at issue. My inquiry was, "What constitutes a bunch of Grapes?" I maintain that it is what is produced by one fruit stem from the shoot. If this be so, then the Eskbank Grapes were at least two distinct bunches, for there were two distinct fruit stems with a clear space between them, and in this I am corroborated, I repeat, by half a dozen of the principal Grape-growers and prizetakers at the Show, and I have subsequently received from four of them written testimony to the same effect.

Mr. Curror says that the Judges had ample opportunity to inspect them, but did they do so? or have they said they did? Perhaps like myself they never for one moment doubted the honesty of the bunch, neither would I have doubted it had not my attention been drawn to it by two gentlemen whose faith in its honesty had evidently not been so strong as was mine. From the place which it occupied at the back of the table, and the fact that it was guarded by a policeman, the public had no opportunity of inspecting the shoot on which the Grapes were hanging.

The writer of the second communication signed "D. E.," evidently evades the question, and for reasons best known to himself answers it only by praising the Eskbank Grapes, and depreciating those from Arkleton. Now, I beg to remind him that I wanted the opinion of men who were not interested in either of the bunches. No person can doubt after reading the letter of "D. E." but that this gentleman is a partisan in the Eskbank Grapes, and perhaps one of the party who cheered, but of that more hereafter. "D. E." thinks that for months past I have been living in the belief that all I had to do was just to go to Edinburgh, lay down my bunch and take the prize. Practice in showing has taught me never to be too certain on that score.

I never for once doubted but what the Judges could weigh a bunch of Grapes, but I ask the question, Did the Judges weigh them, or did they leave that for others to do? But before entering on this I must explain matters a little. On the Wednesday morning about six o'clock I called at the Music Hall, but was refused admittance by the Assistant-Secretary (Mr. Young), who declared that none were permitted to enter but the Judges and Committee. I told him that I only wanted to see the Grapes weighed, when he answered me by saying that if I called again about nine o'clock I could see that done; but on returning at 8.40 in company with a friend I was twitted by a gentleman with the following:—"Where have you been? Why weren't you seeing your Grapes weighed? They were weighed half an hour ago?" Now this is a fair question, and perhaps "D. E." will be able to explain. If I was not permitted to be present, and if none but the Judges and Committee were there, where did the dozens of witnesses come from? Who were the parties that cheered (for I am aware they did so)? Who were they that shouted, one 26 lbs. 1 oz., another 26½ lbs., and a third 26 lbs. ½ oz.? Now, to say the least of it, this is not very assuring that there could not possibly be any mistake in the weighing; and if "D. E." is a true example of the dozens of disinterested gentlemen who were looking on and checking the weights, I can understand the reason for the cheering when the Eskbank Grapes were made out to be the heaviest, a course of proceeding which I trust will not esta-

blish a precedent for the guidance of future international shows.

"AN ENGLISH GRAPE-GROWER" says that the Arkleton bunch was much rubbed and appeared to have received injury in transit, which spoiled the appearance of the berries. Now, I beg to state that when I staged my Grapes the berries were neither rubbed nor broken, and no bunch could have carried better; yet when I saw it about nine o'clock next morning I should certainly have had some difficulty in knowing it to be the same had it not been for the board that it was lying on, it was so tarnished that the public had not the pleasure of seeing it to advantage. I will now state a fact which I witnessed myself. When I entered the show-room a gentleman in company with a photographer were working on my bunch to have it photographed, and to give an idea how carelessly it had been tied (after having been weighed), it slipped off the board and fell into the arms of one of the gentlemen—judge from that if it could have a good appearance.

"AN ENGLISH GRAPE-GROWER" expresses his surprise to hear that half a dozen principal Grape-growers and prizetakers at the Show should consider the compact Eskbank bunch to be two bunches, and asks, "What does this mean?" It simply means that in their opinion, and the opinion of many others that I could name if necessary, that it was two bunches of Grapes, because it had two distinct and separate fruit stems springing from the shoot, and I have lodged a protest in the hands of the Secretary against the award being given to the Eskbank Grapes on that score, and I have corroborated my statement that it was not a *bonâ fide* bunch by giving him the names of five gentlemen who are unquestionable authorities. To that protest I have as yet received no answer, but I consider that the Committee are bound in honour and justice to investigate the case, and also that the interests of horticulture justify my bringing the circumstances of the case before the public; for if this award to the Eskbank Grapes has to form a precedent, and henceforth as many fruit stems as can be drawn together and made to form a cluster more or less compact are to be regarded as one bunch of Grapes, it will revolutionise the growing of large or any other bunches of Grapes.

As I said at the outset, the weight is not the point at issue; and though I demur to the proceedings, I should never have thought of challenging the award on that account; and had I been satisfied that I was honestly beaten I would have scorned the action of seeking to detract from the well-earned merits of another, or have envied him his laurels, but under the circumstances I stand by my protest, and maintain that I have grown and exhibited the heaviest *bonâ fide* bunch hitherto produced, and assert my right to any little credit to which the world may deem the producer entitled.—JAMES DICKSON, *Arkleton, Langholm*.

### NOTES AND GLEANINGS.

MR. JAMES ABBIS, J.P., the Vice-President of the successful International Potato Exhibition held at the Alexandra Palace on the 29th ult., has offered a *PICKE OF PLATE* of the value of £10 to be competed for at a similar Exhibition to be held in 1876. Messrs. Gale, R. Fenn, and J. Coutts have also promised special prizes in the event of another Exhibition being held. At the Exhibition held last week we omitted to state that Mr. B. Dean, Ealing, was awarded the first prize for six Round varieties of Potatoes with dishes of similar quality to those which won the £10 silver cup.

— In the western parts of Dorset and the eastern parts Devon we have just seen how abundantly loaded are the APPLE TREES, and are not surprised, therefore, to read in the *Bridport News* that Apples are so plentiful in Devon that they are offered at 1s. a-bag, and cider is considerably less than 7s. 6d. per hogshead.

— We have received from Mr. R. Gilbert, The Gardens, Burghley, a fruit of his new GREEN-FLESHED MELON A. F. Barron. The fruit was of bluntly oval shape, and weighed about 6 lbs. It was regularly ribbed, beautifully netted, and was very handsome in appearance. The fruit was over-ripe, yet it was of excellent quality. It had a thin rind, thick flesh, and remarkably small seed cavity. It was singularly juicy, sweet, and possessed a delicate aroma; it sustains Mr. Gilbert's reputation as a successful raiser of Melons.

— THE Commissioners of Her Majesty's Works and Public Buildings intend to distribute this autumn among the working classes and poor inhabitants of London the SURPLUS BEDDING-OUT PLANTS in Battersea, Hyde, the Regent's, and

Victoria Parks, and in the Kew Royal Gardens, and the pleasure grounds Hampton Court. If the clergy, school committees, and others interested will make application to the Superintendent of the park nearest to their respective parishes, or to the Director of the Royal Gardens, Kew, or to the Superintendent of Hampton Court Gardens in the cases of persons residing in those neighbourhoods, they will receive early intimation of the number of plants that can be allotted to each applicant, and of the time and manner of their distribution.

THE Cryptogamic Society of Scotland held their first Exhibition at Perth on the 29th ult. The display of FUNGI, FERNS, LICHENS, &c., was extensive and varied. Round the walls of the hall were hung hundreds of sheets of dried Ferns and Mosses. On the centre table, which was beautifully and scientifically arranged, all the specimens were placed according to their species. There were also several drawings illustrating the *Peronospora infestans*, or Potato fungus, magnified five to seven hundred diameters by Mr. Worthington G. Smith, London. On this table there was also a hat made from *Fungus* (*Polyporus fomentarius*) from Transylvania, Eastern Hungary, exhibited by Professor Dickie, Aberdeen. Nearly the whole of the sheets on the walls containing Mosses, Lichens, and Ferns were shown by Mr. Howie, Largo. His collection included forty-eight sheets obtained from Mr. Thomson, Secretary to the Field Naturalist Club, Dunedin, New Zealand, the specimens being collected there; and also 461 sheets of foreign Mosses from Professor Simper, Strasburg. Mr. Croall, Stirling, had a fine collection, comprising two hundred specimens of Mosses, Ferns, anatomical dissections of Seaweeds, and microscopic Fungi. Specimens were also sent from the seats of the nobility and gentry of Scotland. The Exhibition was a great success.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

UNDOUBTEDLY it is a very essential point at this time of the year to fully consider the means to be adopted in the matter of wintering the necessary stock of plants for both bedding and decorative purposes. The resources of a villa residence are often too limited for plants to be preserved according to the owner's wishes, and various plans must of necessity be resorted to. Although there may be no immediate danger by frost, yet as it often comes suddenly it is well to be prepared for it. In the first place I know of no better opportunity than the present for the preparation of the greenhouse by either scrubbing the paint, or if necessary giving one coat of paint before placing plants of any kind in it. After it is dry such plants as *Asaleas* and *Camellias*, as well as most other greenhouse plants, should be brought in; but if a pit of any kind, whether of wood or brick is provided, I would prefer the *Asaleas* and *Camellias* going in that for a month or two, as the atmosphere of a greenhouse is too dry, and the change would be too great perhaps for the benefit of the plants. This would give the room in the greenhouse for the most tender plants, and several others still in growth or bloom, such as *Coleus*, *Balsams*, *Fuchsias*, *Begonias*, *Achimenes*, &c.

*Primulas*, *Cinerarias*, and *Calceolarias* in pots should be placed in frames and protected from wet by the lights, but not without an abundance of air being given in mild weather, and taking care that the plants are kept nearly close to the glass, which keeps them dwarf and causes the foliage to spread out instead of curling-up in a cup-shape as we sometimes see it. It is the extreme wet that we occasionally have at this period of the year that injures such potted plants as mentioned above. This wet, accompanied with cold airy nights, soddens the soil and cools the roots too much, rendering *Camellias* liable to shed their buds, and preventing *Asaleas* ripening their flower buds, which is so essential to a plentiful supply of good-formed flowers.

After having these housed, the next thing is to secure all those plants from the flower garden that are wanted for autumn and winter use, or for the bedding season of next year. These are chiefly the berried *Solanums*, which should be well watered before taking up, and the soil sufficiently removed from the roots to prevent injury, yet to enable them to be potted into as small pots as possible. These must be kept well watered and free from the sun until they have rooted afresh, or the berries may drop. These are useful decorative plants, and should be grown by everyone. The *Chrysanthemums* in the open ground which it is desired to take up should be treated similarly in every respect; and those already established in pots should be well tied-out, and not once neglected in the matter of watering with clear water overhead, and every other time with liquid manure at the roots, and if necessary give them a top-dressing of rich loam and manure. Some thinning of the buds should take place now, especially of the *Pompon* kinds which produce so many; but if any flowers are wanted for a special purpose of

larger than the ordinary size the buds must be thinned more severely, even to one on a twig if necessary.

Again, there are few places where there are not a few *Geraniums* grown for some special purpose, such as covering a dwarf wall, or as single specimens in borders. These must soon be taken-up although they may be still flowering well, unless there is means of protecting them from frost. I have many similar plants doing good service, which I usually leave out till the middle of November, but they are properly protected every night. These are not potted when taken up, but brought as careful as possible to a shed well lighted by a skylight, and as the boiler is there no frost reaches them. The roots are plunged in leaf mould and common garden soil mixed and pressed firm. For a time they are watered overhead till the leaves die-off, after a time these are picked-off and the bare stems allowed to remain dry all the winter, and the roots moderately so till about March. The young foliage appears then, and they are encouraged a little, afterwards worked-out under protection, and encouraged to grow in a similar soil to do duty as before. Other *Geraniums* are treated similarly, that is such as are scarce, but being small they are tied in bundles of from six to a dozen. Variegated sorts being more delicate are kept in frames or the greenhouse in pots each holding a dozen plants. These are cut down in the spring, and when beginning to grow again divided and potted, grown-on, and then hardened-off for the purposes required.

Now that is as little trouble as possible, and is a plan which an amateur may imitate, though, perhaps, not on so large a scale. When the late-flowering plants above spoken-of in the greenhouse are stowed away, the spaces are gradually filled-up with *Primulas* and *Cinerarias*, as well as the bedding plants from frames. Such other plants as *Iris*, *Tropaeolums*, *Heliotropes*, and others similarly tender are generally propagated best in the spring; therefore, they may be at once put thickly in pots and put into the dry places in the greenhouse.—THOMAS RACORD.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### HARDY FRUIT GARDEN.

APPLES and Pears are being rapidly gathered and stored. After a long-continued drought, at the time that fruit is nearly ripe, a heavy rainfall more than anything else tends to the speedy ripening-off of these fruits. Cox's Orange Pippins have coloured-up in a most remarkable manner during the few bright days we have had. Suffolk Thorn and Dr. Nellis Pears that showed but little signs of ripeness when the ground was dry, ripened-off directly and began to fall from the trees when the ground was saturated with the rains. We would also draw attention to the fact that many persons gather their fruit from the trees before it is ripe enough to gather. They see fruit lying on the ground at the base of the trees, and if a slight gale should arise more of it may fall off, yet if the fruits are carefully examined many of them will be found to be defective, and some of them may be attacked by the Apple maggot. The true and best test of ripeness is when the fruit parts easily from the trees; if one of the fruits is gently lifted up, and it will part without any effort on the part of the gatherer, then it is ready to be taken from the tree. The fruit ought also to be quite dry when it is gathered.

Peach and Nectarine trees upon the walls now require attention; the leaves will begin to separate themselves from the growths, and should be removed as soon as they part readily. Many persons use a birch broom about half worn, and if this is handled carefully all the leaves can be removed without the buds being knocked off. Those who have but a limited extent of wall surface covered with these trees, and have time to spare, will remove the leaves by hand. Any shoots that are being injured by shreds or ties cutting into the bark should be loosened from the wall and fastened-up more loosely. Walls that are furnished with wires, to which the trees are trained, require more attention at this season than the ordinary wall-trained trees nailed to the walls with shreds; the wires cut the bark if the shoots are tied tightly to them, and canker is sometimes induced. If wires are used they ought to be of iron and painted. Unpainted galvanised iron wire is the worst of all to train the trees to by the roughness caused by the process of coating the surface. If there are any loose branches it is quite necessary to nail them in at once, as the equinoctial gales which may now be expected may break off or otherwise injure loose growths.

We continue to look over the Strawberry quarters, and cut off all the runners as soon as they are formed; we also hand-weed if necessary, as but little good can be done with the hoe at this season. We never dig between the rows at any time. Red spider is very troublesome to us, and seriously retards the growth of the plants during hot weather. The most mischief is done when the runners are badly attacked in the early stages of their growth; but at this time the pest can be the more readily destroyed, the plants can be taken in the hand and the leaves be



immersed in a pail of water in which a sufficient quantity of soft soap has been dissolved; indeed, it has been necessary to dip all the pot plants only quite recently, as the spider could not be kept under by frequent syringing. The difficulty with Strawberry plants is to reach the insects, as they feed upon the under sides of the leaves.

Mr. W. Taylor's remarks last week are very much to the point as regards the influence of soils on cultivation, but soil exercises quite as much influence on the insect pests as it does upon the trees. We could almost venture to say that Mr. Taylor knows nothing of the trouble that we have to keep our plants clean and healthy; and not only does this hold good with Strawberry plants, but Vines, Peaches, Melons, and Cucumbers are under the same control. Gardeners who have had experience only with heavy or clay soil may think too much fuss is made of the difficulty of dealing with insect pests, but this only proves the value of experience gained in such widely different circumstances as that of the different correspondents of this Journal.

#### FRUIT AND FORCING HOUSES.

**Vineries.**—Those who intend to start their Vines about the end of November should have them pruned and the canes divested of all loose bark, thoroughly washing them and afterwards painting with the usual dressing—viz., 2 ozs. of soft soap dissolved in a quart of water, and add to this a little tobacco liquor and thicken to the consistency of paint with flowers of sulphur. A little neat added will tone down the colour. Our attention is next directed to the inside border. The surface soil of this should be removed to the depth of from 8 to 6 inches. If few roots are near the surface the greater depth should be removed. This old soil is to be replaced with some rich dressing. Stable and cow manure in equal proportions answer our purpose best; this is moderately rotted and mixed in about equal proportions of good turfy loam. Many persons might not be able to obtain this, and manure from the hen houses or pigeon lofts could be obtained; this might be used in the proportion of six parts of loam to one of manure. Guano or bones ground to powder are equally well adapted for this purpose. One good Grape-grower always uses cow manure for his Vines, and though he does not grow large or very highly finished bunches we never tasted better-flavoured Grapes. This may not be attributable to the manure, but to the loam, which is medium clay on a clay subsoil, and well adapted for Vine culture.

In the late houses, as is usual when the leaves begin to fall, there is some difficulty in preventing the berries from decaying. The best way is to air the houses freely by day, at the same time warming the heating apparatus; but the heat ought to be turned off in time to allow the pipes to become cool before the house is shut up at night. It is quite as well to shut up close as not, for not only are the nights becoming quite cool, but the atmosphere at the same time is usually laden with moisture. We remove all decaying berries and leaves as soon as they are perceived.

#### MUSHROOM HOUSE.

Some instructions for preparing material for the beds were given a few weeks ago; if the material as directed at that time has been prepared by allowing all the rank steam to be thrown off, the beds may be made up. We make up the earliest beds on the ground if that is not required for forcing Sea-kale and Rhubarb. It is necessary to say that overmoist material may be fatal to the production of a crop, and the same may be said of too much heat. These are two evils that must be guarded against at all hazards. As we have said in former numbers, success or failure rests in the preparation of the materials. The manure can be dried by being spread out in an airy shed, and a large proportion of moisture is thrown off by evaporation. If it is supposed that the bed is too wet at the time of spawning, some very dry decayed manure may be placed around the spawn when it is inserted in the hole. At present no artificial heat is required. The spawn will run better if the house is merely ventilated by day and shut up at night, so that the temperature does not fall much below 55°. Overheating, with a dry atmosphere combined, will be very injurious. If it is necessary, as it will be in a few weeks, to use the heating apparatus, water must be sprinkled about to counteract its drying effects. A word on ventilation. Good Mushroom may be produced if but little attention is paid to the ventilation, but it is much better to see that the house has a renewal of fresh air daily.

#### GREENHOUSE AND CONSERVATORY.

It is now a busy time in this department; all the plants require to be re-arranged. Camellias that have been out of doors since the flower-buds were set have now been removed to the greenhouse. Azaleas and all other New Holland plants will also be placed in positions under glass. At this season it is necessary to lay the plants on their sides to protect them from heavy rains, for as long as there is no danger from frosts the hardier species are better out of doors. We have been repotting stage Paeonies. These beautiful flowers are not quite so popular as the zonal or scarlet-flowered section. They cannot be had at all seasons, and the plants are subject to the attacks of green fly; this may be against them, as people now-a-days like plants that

can be cultivated with the least amount of trouble. If green fly is not allowed to make any progress, but is destroyed by fumigation on its first appearance, the plants will not suffer. The potting material used at this time is lighter—contains more leaf mould and sand, than that used to repot the plants in spring. The mould is shaken from the roots, so that the plants growing in, say, an 8-inch pot, may be potted in one 6 inches in diameter. We drain the pots well and pot moderately firm.

Some young Heaths and other hardwooded plants that were potted in August have filled their pots full of roots, and have again been potted. It is now quite late enough for repotting plants of this nature, but it is better that any young specimens be shifted at once than that they should be checked in their growth for want of pot-room. The Chrysanthemums that were showing colour in the flowers have been removed to the blooming house; the others will be taken in as soon as they are ready.—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

JERSEY.—Autumn October 18th, Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

LOUGHBOROUGH.—November 15th and 16th. Mr. W. Pallett, 55, Baxtersgate, Sec.

#### TRADE CATALOGUES RECEIVED.

Charles Turner, Royal Nurseries, Slough.—*Catalogue of Roses, Fruit Trees, Conifers, &c.*

Hoopes Brother & Thomas, Cherry Hill Nurseries, West Chester, P. A.—*Trade List of Ornamental Trees and Shrubs, Fruit Trees, &c.*

Messrs. William Paul & Sons, Waltham Cross Nurseries, London, N.—*Catalogue of Roses.*

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

ALEXANDRA PALACE SHOW.—We find that Mr. Rawlings of Romford was awarded a special certificate for an excellent collection of named varieties of Dahlias. The blooms were large and in good condition.

ADDRESS (H. E.).—It is not our practice to furnish the names of any correspondents who prefer to write anonymously.

PREPARING QUINCES FOR TABLE (E.).—There are various ways of using them, as in cakes, creams, jelly, marmalade, puddings, tarts, preserves, and as pickles. To detail all these modes would take up too much space, but if you specify your requirements we are willing to aid you.

GLADIOLI NOT FLOWERING (M. H.).—The bulbs ought to have bloomed. Let them remain until the foliage turns yellow then take them up and store in a cool and dry place, planting them again in March. We hope you will have better success next year.

ADMITTING AZALEAS INFESTED WITH MEALY BUG AND CAMELLIAS WITH SCALE TO A NEW GREENHOUSE (E.).—There is little chance of your clearing the plants of these pests in a new any more than in an old house; and though we should not object to the Camellias, we should not admit the Azaleas had we the alternative.

EDGING FOR KITCHEN GARDEN WALKS—MATERIAL FOR WALKS (Idem).—Edging tiles, if stout and hard-burned so as to withstand frost, are best, and for the walk asphalt.

SKATING RINK.—"Goss" asks what is the nature of the flooring of the skating-rink in use at Aston Park and other places?

TWO BEST PEACHES FOR A SOUTH WALL (M. E. P.).—It is difficult to select two of the very best as there are now so many very good kinds, but we give you two selections of two each—Dr. Hogg and Noble, and Crawford's Early and Gossé Mignonne. The last-named is of splendid quality, but the tree is rather subject to mildew.

SELECT PYRTHRUMS (W. W. E.).—No Pins Ultra, Vernalis Defiance, Solitaire, Delicatum, Miss Kirke, Imperatrice Charlotte, Striatum plenum, Carminatum plenum, Boule de Neige, Galathea, Alfred Selter, Roseum Perfectum, Imbricatum plenum, Brilliant, and Princess de Metternich.

MOVING BRIARS STRUCK AND BUDDED THIS YEAR (Brier Stock).—You may move them next November, the stock being as efficiently rooted as they will be in twelvemonths hence, though for sale purposes it is necessary they stand a year to become plants instead of buds as at present.

HEATING A GREENHOUSE (G. M.).—The very best (and cheapest in the end) mode of heating a greenhouse is with a stove boiler fixed inside the house and 2-inch hot-water pipes, and for a greenhouse the size you name you will require four rows of 2-inch piping the length of the house. The boiler may be beneath the stage, or you may have it in a shed at the back of the house. If you have it inside be careful that the smoke-flue, or that carrying off the obnoxious products of combustion, be perfectly tight, none of the vapours escaping by the joints into the house, and take it outside clear of the wood-work.

DEFENCE OF ASPARAGUS PLANTS (T. H.).—The plants being in rows 3 feet apart in beds 4 feet wide, and the beds having 3-foot alleys between, as well as they can be, the plants being 15 inches apart in the rows. Compton's Colonial is a strong grower, but will do excellently at the distance you have given it. We consider Asparagus does best a yard apart and 15 inches

apart in the rows, having no beds or alleys, but planting on a slightly raised ridge.

**PREPARING ALLOTMENT GROUND (H. C. R.).**—We should bring up about 8 inches of the soil deeper than it has been stirred before; or take out a trench 10 inches deep and 3 feet wide at one end, and taking out the loose soil, then loosen the bottom of the trench another spade depth if you can—in fact, digging it, and upon this turn the next trench, and before throwing up the "shovellings" apply the manure and cover it with the shovellings; this being done in November you will have nothing to do but plant in spring, forking over the ground as the work proceeds. We have seen the plan proposed to be pursued by your tenant practised with a very satisfactory result, but not burning the weeds unless they are couch grass or others of a perennial kind, and then it is necessary; but the weeds being of an annual kind, to burn them is to waste the fertilizing property they possess when dug into the soil and there decayed. Phospho guano at the rate of 2 to 3 cwt. per acre would at the time of planting be a suitable dressing for Potatoes.

**FRUIT TREES FOR NORTH-NORTH-EAST WALL (A. Constant Subscriber).**—The wall is about as bad as a full north-aspected one, and would be useless for such Pears as Marie Louise, Williams's Bon Chrétien, and Coe's Golden Drop Plum. Jargonelle Pear would do, and Pond's Seedling, White Magnum Bonum, Washington, and Winesap Plums, with May Duke and Morello Cherries, the latter being very prolific. Information as to the best fruit trees for a north aspect is much wanted, and we should be obliged for particulars of experience.

**BROWN TURKEY FIG FOR SOUTH WALL (F. M. S.).**—This and the Brunswick are the two very best Figs for outdoor culture, the Brunswick not being so free-bearing as the Brown Turkey, but is a better grower. You may safely have the one which has been grown at the back of a vineyard, but we should not advise you to plant it until spring (March), or if you plant this autumn afford a protection over the roots, and cover the branches with two or three thicknesses of mats. Add some well-rotten manure to the soil, loosening it to a depth of 3 feet, the width being the great objection, but we have seen them do remarkably well in a similar position.

**ROSES FOR SOUTH WALL (Idem.).**—We should have *Maréchal Niel* preferably to *Gloire de Dijon*, and *Perle de Lyon* to *Climbing Devonians*, though those you name will answer well. The border should have some strong loam added to it and be liberally manured.

**GRASS TERRACES (J. P. of York).**—We consider your plan much the best, and should not hesitate to adopt it, as with the three terraces you will be able so to arrange matters as to have the outer wall a sunk one, or, better still, dispense with the wall altogether, having neither of the walls shown in your second plan but the wire fence, increasing the width for its position to half that of the width of one of the terraces from the bottom of the slope. The slopes should have a base twice that of the height, and the terraces should not be less in width than double the width of the incline of the slopes. If you object to the wire fence plant a Yew hedge 4 feet from it on the terrace side, or the sunk fence would rid you of any objection to the wall being outside.

**GREENHOUSE GERANIUMS FOR SPRING-FLOWERING (Rodney Stobie).**—Cut them back now, and when they have made shoots an inch long turn them out of the pots and remove most of the old soil, shortening any straggling roots, and repot in the same size pot, shifting into larger in March.

**IRIS (Idem.).**—Pot them now five or six bulbs in a 6-inch pot in a compost of turfy loam two parts, and one part each leaf soil and sandy peat, with a half part of silver sand, making the soil firm about the bulbs, and covering about an inch deep. Stand the pots in a cold frame or pit plunged in ashes, and do not water until the plants appear, and then very moderately, increasing the supply with the growth, and protect in severe weather with mats or other covering; and in February remove to the shelves or other light airy position in a greenhouse, keeping them well supplied with water.

**AZALEAS AFTER FLOWERING (Idem.).**—Place them in a house with a brisk moist heat, repotting if required, and keep therein until the growth is complete. They should be sprinkled with water overhead two or three times a-day, and after the buds are set remove them to a cool airy house, shading from bright sun up to October, or the shade of climbers will be sufficient.

**MADREPSHIELD COURT GRAPE CRACKING (Philip Barker).**—In a badly ventilated atmosphere, and when the watering has been neglected, the border dry in the early stages of the swelling, the berries of this kind are liable to crack; but under good treatment it is one of the very best Grapes. In your case we think the insufficient thinning of the berries the cause of the berries cracking. Gros Colman is a thicker-skinned sort, and is not so susceptible of injury by moisture upon its surface as Madresfield Court.

**FRUIT TREE FOR WEST END OF HOUSE (A. F. Newman).**—The Breda Apricot would no doubt succeed, but the fruit, though abundant, is small, but excellent for preserving. Transparent Grape, the best of all Plums, which ripens early in September, or Coe's Golden Drop ripening at the end, would also be suitable.

**PYRAMID FRUIT TREES FOR GARDEN (A. Would be Amateur).**—The following is a list of kinds that succeed in a cold, high, exposed, and wet district, and would no doubt suit you. Pears: *Doyenné d'Ete*, *Jargonelle*, *Williams's Bon Chrétien*, *Beurré d'Amanlis*, *Louise Bonne de Jersey*, *Comte de Lamy*, *Jersey Gratiot*, *Thompson's*, *Marie Louise*, *Beurré Diel*, and *Bergamotte Esperen*. *Desert Apples*: *Devonshire Quarrenden*, *Kerry Pippin*, *Margaret Downton Pippin*, *Red Astrachan*, *Summer Pearmain*, *Whorle*, *Beespool*, *Cockle Pippin*, *Kiddleston Pippin*, *Nonpareil*, *Sourlet Nonpareil*, *Sturmer Pippin*, and *Sykehouse Basset*. *Kitchen Apples*: *Keswick Codlin*, *Lord Suffield*, *Nonpareil*, *Emperor Alexander*, *Cox's Pomona*, *Mère de Menage*, *Tower of Glamsie*, *Blenheim Pippin*, *Bedfordshire Foundling*, *Dumelow's Seedling*, *Warner's King*, and *Northern Greening*. Plums: *De Montfort*, *Oullins' Golden Gage*, *Green Gage*, *Kirke's Transparent Gage*, *Coe's Golden Drop*. *Kitchen Plums*: *Early Rivers*, *Victoria*, *Orleans*, *White Magnum Bonum*, and *Pond's Seedling*. Probably we have mistaken your requirements, and you do not wish for pyramids, but trained trees for the wooden rails and walls. Those named will answer for either purpose, and we may just hint that the wooden rails would, having a west aspect, suit the kitchen Plums, *desert Apples*, also Pears; the south aspect the *desert Plums*; and the stone wall, that having an east aspect, the Pears marked with an asterisk, and you may add to those so distinguished *Général Tottleben*, *Van Mons Léon Lesclerc*, *Beurré Becheller*, *Winter Nells*, and *Josephine de Malines*. Most of the Apples we should grow as pyramids along the sides of the walks.

**OUTDOOR VINES (F. J.).**—The shoots 18 inches apart should have been allowed to make six leaves and then been stopped, the laterals stopped at one leaf. This is what we presume you have done, and these shoots should be

cut back to within two eyes of their base. The leading shoot need not be stopped until it reach the top of the wall, and then take out its points, and cut this back no more than to remove any unripened part, training it in in the serpentine form its full length. The laterals to be cut-in close to the cane.

**NIGHT SOIL (Idem.).**—You may apply it fresh, placing it rather thinly around each Rose, a spadeful being quite sufficient for each plant, disposed in a circle a foot from the stem, and covering about 2 inches deep with soil.

**PERENNIALS FOR BEDDING (A. M. G.).**—We know of none attaining the same height and flowering at the same time as *Geraniums*. Any of our correspondents having experience of any good hardy perennials for bedding purposes would oblige us by furnishing the information.

**TREATMENT OF SOUVENIR DE LA MALMAISON AND LA BELLE CARNATIONS (Idem.).**—They are climbing kinds, and require to have the shoots trained around columns or half-balloon trellis, to be grown in a greenhouse from the end of September to June, and then outdoors, potting in June, if for winter flowering, after cutting out any long bare shoots. A compost of turfy loam, with a fourth old cow dung and a like proportion of old mortar rubbish, with good drainage, will grow them well. If to flower in winter a temperature of 45° to 50° from fire heat is necessary. Outdoors they should have an open situation, but sheltered from winds and be duly watered.

**TULIPS AND CROCUS FOR POT CULTURE (Drake).**—*Tulips*—Single varieties: *Belle Alliance*, *Bride of Haarlem*, *Canary Bird*, *Chrysolora*, *Duc Van Thol* in variety (the best for forcing), *Keyzers Kroon*, *Pottelbakker*, red-striped, white, and yellow vars.; *Proserpine*, *Rosa Mundi*, *Thomas Moore*, *Vermilion Brilliant*, and *Yellow Prince*. *Double Tulips*: *Duc Van Thol*, fine forcing; *Imperator rubrorum*, *Murillo*, *Princess Alexandra*, *Tourneol*, and *Tourneol Yellow*. *Crocus*: *Albion*, *Bride of Abydos*, *Garibaldi*, *Golden Yellow*, *La Majesté*, *Mont Blanc*, *Othello*, *Sir John Franklin*, and *Sir Walter Scott*.

**BLUE PIMPERNEL (Idem.).**—The blue *Pimpernel* (*Anagallis cerulea*) is less common than the red (*A. arvensis*), but is not by any means rare.

**DEODAR ORDER PRODUCING CONES (G. C. S.).**—It is not unusual, but they do not usually perfect seeds.

**ROSES FOR EAST WALL (—).**—*Gloire de Dijon*, *Maréchal Niel*, *Bombreuil*, all *Tea-scented*, and *Noisette Céline Forestier*, *Earl of Eldon*, and *Solfaterra*. If you want reds, *Alfred Colomb* and *Charles Lefebvre*, which are *Perpetuels*; or whites, *Boule de Neige* and *Perle des Blancches* of the same class.

**STOPPING DECAY IN ELM TREE (E.).**—Clean out the hole thoroughly, removing from it any accumulation of decayed substance, and run into the hole, after filling it with broken bricks, omitting the small particles, Roman cement brought to the consistency of thick whitewash with water, and allow it to dry, then add more cement in a mortar condition, and bring up level with the bark of the tree. This will exclude wet and prevent further decay; but we have still the thickness of the bark wanting, and that fill with a pigment formed of equal parts of clay, cow dung, and cooco-nut fibre, bringing it over the sides of the live bark, and make the surface smooth as in grafting. This removed every three months, and seem to occasionally that it do not crack and fall off, will encourage the bark to grow in that direction, and not unlikely you may cover the hole with live bark. Anyhow, if you only exclude the wet and air from acting on the decayed part your tree will live for many years.

**MANETTI STOCK FOR ROSES—"MAIDEN" (Idem.).**—*Manetti* stock is a free-growing kind of Rose known by that name, and largely employed instead of the *Brier* as a stock for grafting and budding Roses on. "*Maiden*" is a tree a year old or a year's growth from the bud or graft, and which has not been cut-back or "headed."

**EVERGREEN SCREEN (Idem.).**—The American *Arbor Vitæ* is very suitable, and moves quite safely when of large size. You may obtain plants of nearly the height you require, and taken up with good balls and carefully planted would grow well. *Cupressus Lawsoniana* is a superior plant, but *Thujeopsis borealis* is handier and equally fine. *Corsican Pine*, which is, however, not a good transplant, grows quickly, and planted two or three lines deep is an effective screen. The quickest-growing screen (but it is not evergreen) is *Lombardy Poplar*.

**POTATOES IN THE NORTH OF ENGLAND (G. S.).**—Potatoes are now selling at 4d. per stone of 14 lbs. in the markets of Ulverston, North Lancashire; Whitehaven, Cumberland; and Kendal, Westmoreland. The sorts most used there are, we believe, *Sherries* and *Fukes*. So far they have been a fine well-grown crop; but as many are still in the ground in these counties it is quite possible that the heavy rains of the latter end of September may operate prejudicially on the later kinds. During the past month the markets at the places named have been largely supplied, and the prices have been as low as 4d. per stone. 4s. per cwt. may be taken as the medium prices for good tubers.

**PEACHES AS ESPALIERS (S. B. Hants).**—Early York Peach and Lord Napier Nectarine are equally worth a trial in your garden as espalliers.

**MANAGEMENT OF LAWN (B. E. L.).**—You may mow your lawn regularly until November, and then roll it weekly until March, when it will be necessary to resume cutting.

**POSTAL (G. S. Richmond).**—The *Journal of Horticulture* can be delivered to you by post direct from the office by mid-day on the day of publication.

**FRUITS FOR NAMING (T. G.).**—They must be packed in a box or basket, be sent by rail or carrier, carriage paid, and not more than six varieties.

**NAMES OF FRUITS (Dr. Mackenzie).**—Black Alicante. (S.)—*Bergamotte Esperen*. (*Hogg & Wood*).—*Urbaniste*. (W. M. B.).—All the Apples are correctly named except *Cox's Orange Pippin*, and the sort you have under that name is not it, nor can we distinguish it. (E. S. H.).—1, *Braddick's Nonpareil*; 2, *Summer Pearmain*; 3, *Adams's Pearmain*; 4, *Brooks's*; 5, *Golden Noble*; 6, *Calebasse Grosse*. (X. X.).—1, *Maréchal de Cour*; 2, *Beurré Becheller*; 4, *French Codlin*; 5, *Fair Maid of Taunton*. (*Dr. Wallace*).—1, *Norfolk Stone Pippin*; 2, *Golden Reinet*; 3, *Sturmer Pippin*; 4, *Beurré Diel*; 5, *Not known*; 6, *Lemon Pippin*. (J. Connell).—1, *White Doyenné*; 2, *Amandine de Rouen*; 3, *St. Ghislain*; 4, *Cellini*. (S. H.).—We cannot name Plums with certainty without a portion of the young wood. It does not seem to be of any great merit. (*Seybor*).—1, *Beurré d'Amanlis*; 2, *Swan's Egg*. (W. Johnson).—Pears: 3, *Urbaniste*; 3, *Autumn Bergamotte*; 4, *Bishop's Thumb*. Apples: 1, *Gravenstein*; 2, *Winter Greening*; 3, *Cellini*. (J. J. Lorey).—1, *Maréchal de Cour*; 2, *Beurré d'Amanlis*; 4, *Williams's Bon Chrétien*; 6, *Comte de Flandres*; 11, *Beurré d'Amanlis*; 12, *Souvenir du Congrès*; 13, *Forelle*; 14, *Beurre de Capismon*; 15, *Louise Bonne*; 20, *Gloire Morceau*; 25, *King of Pippins*; 28, *Manks Codlin*; 29, *Sturmer Pippin*;

80 and 81 Ribston, Pippin; 83, Margil; 88, Nonpareil. (Jno. Gage).—Hawthornden.

NAMES OF PLANTS (J. Bale).—*Magnolia grandiflora*. (M. H. M.).—*Habranthus* sp. (W. Clarke).—1, *Laetia dilatata* var.; 2, *Polystichum angulare*; 3, *Pellaea hastata*; 4, *Polypodium vulgare*; 5, *Adiantum hispidulum*; 6, *Pteris cretica variegata*. (A. B.).—1, *Adiantum cuneatum*; 2, *A. concinnum*. (G. Mullin).—*Polystichum angulare* var. (S. Kerlake).—Your specimens are too bad to name. The supposed *Myosotamus* is apparently the Tomato.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### CHAPTER 4.—MICHELDEVER.

THE Dorking breed is of great antiquity, for some have even supposed that it was introduced by the Romans. Aristotle certainly tells us of a five-toed breed of fowls that existed in Greece, and Pliny and others mention that a breed was to be found in Italy possessing the requisite number of toes of our Dorking friends, but whether these birds were the Dorkings of our day we can never know. We may rest assured, however, even supposing they were, that nothing in the times of either Aristotle, Pliny, or Columella existed similar to the Dorking establishment which we had the honour of seeing last week at Micheldever.

We have had opportunities of noticing the crack Dorkings of each year at the various shows for many seasons, and we have had the privilege of seeing many of them afterwards in their own homes, but until we saw Mr. Burnell's we never had seen an establishment containing all the recognised breeds of Dorkings and nothing else. Dorkings of every colour and in every stage of growth there were, and a more perfect sight of its kind we never looked at. Many fanciers who have fine yards of Hamburgs, or Brahmas, or Cochins, as the case may be, so often spoil the actual spectacle by raising less valuable specimens with the best birds, or by the introduction of cross-bred matrons in the various yards for incubating purposes, which to a great extent detract from the beauty of a perfect group. Here, however, there was nothing of this kind, for there was not a bird on the premises that was not a Dorking; and the pens only contained the picked chickens of the season, for Mr. Burnell kills right and left at a very early age, and only leaves the choicer birds to mature in his large grass runs; consequently here the groups were very beautiful to look at. One pen, containing Silver-Gray Dorkings looking bright and fresh from the moult, was one of the most pleasing poultry sights we have seen for a long time.

We will begin at the beginning and go more minutely over this Dorking establishment. We must first say that the soil is chalky, and consequently well drained, which we think must help materially to Mr. Burnell's great success, for on soil which is inclined to be damp we have always heard Dorkings will not thrive. When we first enter the gates we find a large warm corner surrounded by a sunny bank and good shade. This is the chicken nursery. Here in March and April may be found all the coops with the baby broods, which as they are old enough are drafted-off to other runs, and by May or June this spot is cleared again, and nothing more cooped here, or any birds allowed access to it until another spring. Through the intervening months the grass grows and the whole place becomes fresh and free from the taint of its last visitors. This we believe to be another great point, for places where chickens continually live in all through the year cannot be as healthy and fresh as they should be for newly-hatched chickens.

Passing from this place we come into the stable-yard. Here we are met by a pair of capital fox terriers of the best blood procurable, the dog's head especially being very beautifully marked, and "nailers" they seemed at vermin. One of them had just distinguished herself by slaying a stoat which had been found in a run of Dorking pullets. She deserved a silver collar on the spot, for we can imagine nothing more formidable to a poultry fancier than a stoat careering about in his yards. In the stable-yard we found a large room, which was the poultry-room. It was decorated with trophies of bygone shows and birds, in the shape of cups and prize-cards and the sickle feathers that had moulted from winning heroes. Round this room on two sides were large wooden pens with wire fronts, where the birds are penned to judge of their merits before despatching them to the arena of the poultry shows. There were here, too, large galvanised corn-bins, and all descriptions of what the Messrs. Crook call "poultry appliances." We were greatly struck with the great cleanliness and order of everything.

Going on from this room a handful of peas and a whistle called the Pigeons together, and a neat little lot they were. We saw White Fantails, really excellent in tail; and Black and Red Magpies of more than average merit; but the gems of the lot were the Dragoons, not a large lot, only half a dozen as yet, for this is Mr. Burnell's last fancy. A young Blue and a Silver with capital bars we think will, when older, be found near the front somewhere; and then from here we came to the home of

the Dorkings, and we feel we must try and explain a little what Mr. Burnell had to work upon here, and what he has done with his materials.

To begin with, it was a 2½-acre field sloping to the south, the subsoil of which was chalk, with only a thin covering of mould. Round this field there was a thorn hedge, and this is where the Dorking establishment of the present time was made when Mr. Burnell first came to Micheldever. We shall go more minutely into this yard than we have done or shall do with regard to others which we may write of, because we think this must have been the sort of place so many have, and which they are anxious to turn into a poultry establishment, but do not quite know how to set to work. We think Mr. Burnell's mode of proceeding was admirable, and the whole thing done, we should say, at a fairly moderate outlay. To begin with, he gradually allowed the hedges to grow high, which keeps cold winds off and helps to keep intruders out. Then high and strong wire-netting was fastened all round to the hedges to keep out the foxes, which are very plentiful in the neighbourhood. Next a fence was put up right through the middle of the field dividing it into two runs of about one acre and a quarter in each. This fence was made of close wooden rattles, and much resembles the hurdles so frequently used in Wiltshire and Hampshire for penning the sheep. It requires to be renewed once in three or four years, but makes a most admirable and economical fence. Then along the top of the field Mr. Burnell had fixed a strong fence of this same work, only of double thickness, and a narrow strip right across had been taken off the field close to this double-rattled fence. The whole strip is about half an acre, and runs right along the top of the field. This was again subdivided by double-rattled fences into ten or twelve enclosures, and then the actual division of the field was done, and the yards of this large Dorking establishment were made. They comprised in fact two large grass runs of a little more than an acre in each, and ten or twelve smaller grass runs in a row, the whole of this line only containing about half an acre. A moveable wooden house was placed in each pen, strong doors put to each division, and the whole thing was done, and we never want to see a better or more useful set of yards. There were large elm trees dotted about in many of the runs, which afford good shade. One yard had a trio of gnarled-trunked old beech trees, whose foliage was just changing, red and golden leaves being discernible in places. These trees made this pen look beautiful. There were two other old elm trees also that we must tell of, for they contained feathered friends. They stand close together and are quite hollow from old age. At the foot of one of them inside the trunk a White Dorking pullet was sitting, and just over her head on a large knot of the tree was a Wood Pigeon's nest with either eggs or young birds; while in the next tree not a yard off lived a family of Owls, also in the old trunk, and though we could not see them, we saw the remains of various banquets at the foot of their castle inside the walls. It struck us as being quite a happy-family homestead here.

But we must return to the Dorkings. In the first of the large runs we found a dozen or so of splendid Coloured pullets. There was not one badly-coloured bird among them, and any two would have made a good matching pair, so even in colour was every one. In the next run we found cockerels, great-bodied birds with good toes and straight combs, promising to make when matured perfect monsters. Then we saw a run full of white pullets, and a nice lot they were, but more backward than the Coloured, still quite a striking group. Then we saw some Silver-Gray cockerels, among them the bird which was so well to the front at Birmingham and Bath, but he had a brother or two in with him which will soon equal him. Then some Cuckoo cockerels, one of them a splendid colour, with a tail far above the average of Cuckoos. Then we came to White cockerels; we fancied one or two were rather creamy, but this very likely can be attributed to the sap in the feathers, which will be in time outgrown. After them we saw a pen containing all the crack-coloured hens, and a noble-looking lot they were; some quite moulted-out, others in the process of moulting. We were shown the heroines of many an exhibition, and we should say they will be such again if all goes well. From this run we visited others, all containing beautiful young birds, three or four cockerels in a pen, till we came to the last, where we saw the Silver-Gray hens, and a more beautiful trio of hens we never saw together. They were in the most brilliant condition, and we could not help exclaiming, "Oh! why are they not at Nottingham, instead of being at home idle?"

When we had thoroughly "done" all this department we walked to a large farmyard which Mr. Burnell rents, and here are found Dorkings of all colours, sizes, and ages enjoying the fullest freedom; there they will live till they are selected-out and drafted into the establishment which we have just described. We must not forget to mention a beautiful pen of Rouen Ducks which we saw here, the drake especially a good bird. We shall soon hope to see the fox terriers and the Dragoons and the Rouens coming to the front in the prize-lists, following the example of their Dorking companions.

We had a little time to spare still, so we went to two or three cottages where Mr. Burnell has some cockerels out at walk, and we were astonished to find how interested these cottagers were in the well-doing and successes of the birds they had been from time to time looking after. As we walked back to the house Mr. Burnell told us that he personally superintended everything, and only had a boy to do the rough work, and to this fact we attribute a great deal of the Micheldever success; for as we have written in former articles, it is simply useless for anyone to buy valuable birds and then leave them to the care of the gardener or some inexperienced person, for prize poultry require great care and regular management, and unless they have it will only bring disappointment to the owner. We are certain that the personal supervision these birds have had from the first days of the yard being started has to a very great extent been at the bottom of Mr. Burnell's extraordinary success in the world of "the exhibition Dorking."—W.

### THE CRYSTAL PALACE SHOW.

I SHOULD be glad to see a point in the schedule of the Crystal Palace Show cleared up by someone possessing official authority before the last day for entries, as otherwise some of the Dorking exhibitors may be placed in a difficulty. In the list of cups and pieces of plate it is stated that No. 2 silver cup, presented by Mr. H. Beldon, will be given for the best pen of Dorkings, cock and hen, in Classes 1 and 2—that is, in the classes for coloured cocks and hens; but the silver cup No. 5 is offered for the best pen of Silver-Gray Dorkings, cock or hen, in Classes 7 and 8. Now is cup No. 2 offered to the exhibitor who shows the best cock and the best hen, or will the prize go as before to the best bird in the two classes? As the schedule stands no exhibitor has a chance of securing cup No. 2 unless he shows a cock as well as a hen; but I question whether this was Mr. Beldon's intention, and I hope the matter will be made clear.

I am sorry to observe that the Committee still adhere almost entirely to the single-bird system, which no doubt is the best system in some cases, but not where the number of exhibits is so large as at the Palace. A friend, who some years back was among the most successful breeders of the day, went over the Dorking pullet class with me last year, and we both came to the conclusion that to pick out the best birds in such a crowd of competitors was simply impossible. If this be true of the Dorking pullets, how much more is it of the Brahmas? Pairs to me are much more interesting as well as a better test of skill in breeding, and they certainly are far more easy to judge.

I regret, moreover, that the managers have not made some concession so as to allow two or more birds in the same class to be sent in one basket. Some restriction of the compartment system is no doubt advisable. The one I have indicated seems all that is required, and I trust they may yet be induced to relax the rule which requires every pen to be represented by a different basket. Last but not least, the Show would in my opinion be far more acceptable to exhibitors if the birds were sent on Monday instead of Saturday.—A CRYSTAL PALACE WINNER.

### NOTTINGHAM SHOW OF POULTRY, &c.

THE second annual Show of the Nottingham Society closed on the 6th inst. (yesterday). The Exhibition was well managed, the Committee being in attendance, and a good staff of servants kept the birds clean, and they were fed during the whole time with Spratt's poultry food made into paste, as well as dry corn, which we consider good management. Turner's pens were used, and the structure in which they were placed was of wood, erected in conjunction with that of the dog show in the market place. The schedule was a good one, and the entries came up in good force, especially the poultry. In these some portion were single cocks and pairs of hens. This being the case in Game, which we consider a mistake, as these are usually quarrelsome, and no bird shows singly in better form than Game.

Black Red Game cocks were a fair lot, though some were a little coarse. Hens or pullets a large class; the first good, but second a mistake, pen 16 being next best. Brown Reds, first a cock, grand but not in full feather; second a cockerel rather coarse, and rest poor. Pullets were good and well placed. Any other colour cocks, first and second Duckwings, very good; third a Pile, quite equal. Pullets, first and third Duckwings, and second a grand racy pair of Piles. Dorkings, cocks, first a grand dark bird, and the rest but moderate; but hens a good lot. Cochins, Buff, cocks were good, the first a grand old bird, and the rest chickens. Hens also good, the winners young Partridge cocks; the first a grand showy bird; the other winners also young. In the following class adult birds won first and second, and pullets third, but these were in a very dark corner. In the next classes White won all the prizes, although there was one nice pair of Blacks we should have liked to see placed. Brahma cocks, first a grand old bird, and second and third young; the third nicely spotted on the breast, a point not to be

objected to. Hens, a nice pair of hens were first, these were beautifully laced; second hens not so forward, but large. Brahmas, Light, cocks not good, but the hens a splendid class. Hamburgs were shown cock and hen, and as a section they were very good. Gold Pencils were first and a good class, but in a dark part of the Show and difficult to see, otherwise the awards might have been different; first and second were good pens, but third poor as compared with those highly commended in the next pen, 189, the cock having a black tail. Silver-pencils not numerous, but the winners very good. Blacks were a grand class and well placed, as also the Gold-spangles, of which there were only five pens. In the Silver-spangles there were some splendid birds, especially the first-prize cock, which, though a little heavy on the back, had a perfect tail; but we considered the third-prize pen superior to the second, the cock being poor in head. Spanish cocks rather coarse in face; the third finest in that respect. Hens were very good and in fine order. Houdan cocks were a bad lot, but the hens very good in all respects. In the next class Orpingtons were to the front, and both were very good classes. In Polish the first were a grand pen of Silvers, second and third Golden. Pen 204, unnoticed, contained a grand hen. In the Variety class the winners were first and third Malays, and second Sultans. Bantams were also in pairs. In Black Reds the first cockerel was a nice stylish bird, but the pullet was perfectly white on ears; second cockerel also stylish but heavy in tail, but pullet good; third had no good points. Pen 309 (Bell) by far the best, the cock a model in all respects as a Game cock. Brown Reds not good. Any other Game, first a grand pair of Piles, and second Duckwings also good, third Piles. In any other varieties most were noticed, the first going to the best pen of Silver Sebrights we have seen of late; second and third Blacks. The whole of Messrs. Long's and Leno's birds, with some others, too late. The Selling classes were large, and contained many good pairs.

Both Aylesbury and Rouen Ducks were very good; but the East Indian rather large. In the Variety class a nice pair of Chilian were first, Brasilians second.

Pigeons were not equal in number to poultry, no doubt on account of the majority of the classes being in pairs in place of single birds. Carriers were, however, shown singly, as also young Dragoons and Pouters. Carrier cocks were but a moderate lot when Mr. Yardley's heavy Black was left out. Hens were better, and here also Mr. Yardley was unfortunate, having the heavy hen also left out on account of a little deformity. The first was, however, a nice bird, but a little flat-wattled; second and third moderate young birds. Any other colour cocks, first a very young but promising bird, very strong and well built; and second a Blue, bad in colour; rest poor. Young Carriers mustered well, and were fair classes. In cocks first was a neat Black. In hens first was Dun, very young; second Black; and the best and third a Silver. In one class of Carriers and three of Pouters there was no competition. Pouter hens any other colour had five entries; first a White, which on the first day looked best, but on the second day would no doubt have changed places with the second, which was showing different; third a smart Red of grand colour. Almonds no entries; but in any other were some good Agates. Dragoons formed some of the best classes both as regards numbers and quality, and were generally well placed. Fantails were pretty good; but of foreign Owls there was no competition; and Trumpeters all of the old style and nice birds. English Owls were a very good class; first Silvers and well placed; second rather poor Silvers; third Blues, which we should have placed second, this pen containing the best cock in the Show. Jacobins were not good; but the Turbits very nice clean-thighed birds; the first Reds, second Blues, and third Silvers. Antwerps, Short-faced, were a good class considering they were in pairs, and the winners Red Chequers, though some of the best were too late for competition. In Long-faced Antwerps the first were strong Duns; the second Red Chequers, and the award a mistake, as the hen is more of a Dragon than a Carrier. Pen 573 we should have put second, and 578 third, both highly commended. Any other breed were first Red Swallows, second Blondinettes, and third Blue Swallows. The Selling classes were really good, and there were many cheap pens, which would no doubt find fresh owners.

GAME.—Black-breasted Reds.—Cock or Cockerel.—1. G. Lucas, Mansfield. 2. E. Winwood, Worcester. 3. F. Sales, Gwoly. 4. G. E. Fitzherbert; J. Palmer. 5. J. Calladine. Hens or Pullets.—1. W. Smith, jun., Easthorpe. 2. J. H. Bradwell, Southwell. 3. W. Roe, jun., Newark. 4. G. Wilson. 5. E. Blom. 6. Hon. & Rev. E. Dutton.

GAME.—Brown Reds.—Cock or Cockerel.—1. H. E. Martin, Fakenham. 2. E. Bell, Burton-on-Trent. 3. J. Cook, Worcester. Hens or Pullets.—1. W. E. Phillips, Worcester. 2. J. Stoppard, Wicksworth. 3. Earl of Loudoun, Donington. 4. A. C. Braithbury.

GAME.—Any other variety.—Cock or Cockerel.—1. H. C. & W. J. Mason, 2. E. Martin. 3. G. E. Fitzherbert, Severcoth. 4. E. Bell; E. Winwood. 5. F. Stamford; W. T. Everard. Hens or Pullets.—1. H. E. Martin. 2. E. Winwood. 3. Hon. & Rev. F. Dutton, Bibury Vicarage, Fairford. 4. E. Bell; G. Lucas; D. W. J. Thomas.

DORKINGS.—Cock or Cockerel.—1. Rev. J. G. A. Baker, Biggleswade. 2. Mrs. Arkwright, Sutton Scarsdale. 3. T. Potter, jun., Trewell. Hens or Pullets.—1. Rev. E. Barrum, Borkhamstead. 2. J. White, Northallerton. 3. Mrs. Arkwright. 4. Miss Murray; Mrs. Arkwright.

COCHINS.—Buff or Cinnamon.—Cock or Cockerel.—1. G. H. Procter, Durham.

Rev. G. F. Hodson, North Fetherton. 3, C. Sedgwick, Keighley. *Hens or Pullets*—1 and 2, W. A. Burnell, Southwell. 3, G. H. Procter. 4, Rev. G. F. Hodson. 5, E. Sedgwick.

*Cockneys*—*Pertridge*—*Cock or Cockerel*—1, F. Bennett, Shifnal. 2, Miss M. Dickinson, Taunton. 3, T. M. Derry, Gadsby. *Hens or Pullets*—1, T. Stretch, Ormskirk. 2, C. Sedgwick. 3, T. M. Derry. 4, Miss F. Dickinson. 5, F. Bennett. 6, E. Chambers.

*Cockneys*—*Any other variety*—*Cock or Cockerel*—1 and 2, Capt. G. Talbot, Eden Bridge. 3, W. Badger, Salop. 4, A. Parsons, *Hens or Pullets*—1, W. Whitworth, jun., Longsight. 2, Capt. G. Talbot. 3, W. A. Burnell. 4, Capt. G. Talbot. 5, J. F. Dixon. 6, T. Aspin.

*Brahmas*—*Dark*—*Cock or Cockerel*—1, T. F. Ansell, St. Helen's. 2, Mrs. Arkwright. 3, C. O. R. Norris, Trumpton. 4, T. F. Ansell. 5, F. Bennett. *Hens or Pullets*—1, T. F. Ansell. 2, H. Crabtree, Manchester. 3, E. Fritchard, Totton. 4, T. F. Ansell, Horace Lingwood. 5, F. Bennett. 6, G. Kilby.

*Brahmas*—*Light*—*Cock or Cockerel*—1, T. A. Dean. 2, R. M. Horsfall, Liverpool. 3, M. Beldon, Bingley. 4, W. Green. 5, G. Watson. 6, H. Feast. *Hens or Pullets*—1, Horace Lingwood, Cradley. 2, Rev. W. Pearce, West Horley. 3, Mrs. T. Turner, Kingwood. 4, G. Watson. 5, Mrs. T. Turner. 6, W. Crabtree, P. L. Mills.

*Hamburgs*—*Gold-pencilled*—1, H. Beldon. 2, G. Judson, Peckham. 3, T. W. Ballam, Whitwick. 4, C. Judson. 5, J. Preston. 6, W. Dixon. 7, W. Speakman. *Duke of Sutherland*—1, W. H. Crabtree. *Silver-pencilled*—1 and 2, Duke of Sutherland. 3, H. Pickett, Farby. 4, H. Beldon.

*Hamburgs*—*Black*—1, Duke of Sutherland. 2, H. Beldon. 3, E. Robinson, Sheffield. 4, C. Judson. 5, J. Preston. 6, H. Pickett. 7, Needham & Manby.

*Hamburgs*—*Gold-spangled*—1, H. Beldon. 2, G. & L. Duckworth, Church. 3, Duke of Sutherland. *Silver-spangled*—1, Duke of Sutherland. 2, H. Robinson. 3, T. W. Hallam. 4, H. Beldon. 5, H. Pickett.

*Spanish*—*Black*—*Cock or Cockerel*—1, B. L. Edwards, Tarporley. 2, J. Thresh, Bradford. 3, J. Powell, Bradford. 4, R. Hill. 5, J. F. Dixon. *Hens or Pullets*—1, J. F. Dixon. 2, J. Powell. 3, E. Thresh. 4, R. Hill. 5, B. L. Edwards. 6, A. G. Bradbury.

*Houdans*—*Cock or Cockerel*—1, E. B. Wood, Uttoxeter. 2, G. D. Harrison, Datchet. 3, F. Lake, Hittingbourne. 4, W. Dring. 5, Mrs. K. E. Vallance, W. O. Quibell. *Hens or Pullets*—1 and 2, Mrs. K. E. Vallance, Hittingbourne. 3, E. B. Wood. 4, F. Lake. 5, G. D. Harrison. 6, W. O. Quibell. 7, W. Whitworth, jun. 8, E. B. Wood.

*Faverham*—*Any other variety*—*Cock or Cockerel*—1, H. Feast, Swansea. 2, Rev. J. G. E. Knight, Hipsley. 3, W. G. Patchett, Southwell. 4, Rev. N. J. Ridley. 5, W. H. Crabtree. *Hens or Pullets*—1, W. Dring, Faversham. 2, W. G. Patchett, jun., Littleport. 3, W. H. Crabtree. 4, W. H. Crabtree. 5, W. G. Patchett, jun. 6, H. Feast. 7, R. A. Bolester.

*Pelards*—1, H. Beldon. 2 and 3, A. & W. H. Silvester, Sheffield. 4, W. P. Unsworth.

*Any other variety*—1, Miss A. Brooks, Shrewsbury. 2, H. Beldon. 3, Rev. N. J. Ridley.

*Game*—*Bantams*—*Black-breasted Reds*—1, E. J. Ardagh, Worcester. 2, E. Brown, Townsend. 3, W. M. Girden, Manchester. 4, Shumach & Duff. 5, Bell. *Brown-breasted Reds*—1, 2, and 3, A. G. Bradbury, Nuthall. *Any other colour*—1, N. Brownlie. 2, G. Evans, Worcester. 3, T. Barker, Brierden. 4, Shumach & Duff. 5, A. G. Bradbury.

*Bantams*—*Any other variety*—1, Rev. G. F. Hodson. 2, H. Beldon. 3, J. Staley, Newark. 4, E. Fritchard. 5, T. Potter, jun. 6, R. A. Bolester. 7, A. Galandine. 8, J. Mayo. 9, A. G. Bradbury. 10, T. Cropper. 11, E. T. Pelham.

*Shilling Class*—*Price not to exceed 5s.*—1, T. Pomfret, Weston. 2, Capt. G. Talbot. 3, J. Thresh. 4, W. A. Burnell. 5, T. Potter, jun. 6, Miss Murray. 7, H. Robinson. 8, T. Bear.

*Shilling Class*—*Price not to exceed 5s.*—1, W. A. Burnell. 2, J. Powell. 3, W. Thorne, Derby. 4, C. Wilson. 5, Dr. J. Holmes. 6, T. Potter, jun. 7, J. G. Willey. 8, T. Aspin. 9, A. W. Barton. 10, A. G. Bradbury.

*Ducks*—*Aylesbury*—1, J. Hedges, Aylesbury. 2, G. Harrison, Nottingham. 3, T. Bear, Aylesbury. 4, E. Snell. 5, G. Harrison. *Rouen*—1, F. Unsworth, Newson-le-Wilsons. 2 and 3, F. Hey, Eddersfield. 4, C. J. Stephens. 5, W. Bygott, jun. 6, Rev. G. F. Hodson. 7, W. H. Roberts. 8, W. H. Greaves. 9, T. Mills. *East Indian*—1 and 2, G. B. Vainebury, Devizes. 3, C. T. Pelham. 4, G. Harrison. *Any other variety*—1, A. & W. H. Silvester. 2, H. Yardley, Birmingham. 3, A. & W. H. Silvester. 4, Mrs. Arkwright.

#### PIGEONS.

*Guineas*—*Black*—*Cock*—1 and 2, G. Gordin, Birmingham. 3, G. F. Whitehouse, Birmingham. 4, A. Bilyeald, W. T. Ashley. 5, A. Pratt. 6, H. Clarke. 7, W. Cartwright. *Hens*—1, A. Bilyeald, Nottingham. 2, T. C. Marshall, Peterborough. 3, G. Gordin.

*Guineas*—*Any other colour*—*Cock*—1, A. Bilyeald. 2, J. B. Hicks, Forges Street, London. 3, G. F. Whitehouse.

*Guineas*—*Black*—*Young Cock or Hen*—1, J. Hawkins, Nottingham. 2, W. Cartwright, Edgbaston, Birmingham. 3, C. H. Clarke, Old Spinton. 4, J. Atkins. 5, G. Gordin. 6, G. F. Whitehouse. *Any other colour*—*Young Cock or Hen*—1, W. Cartwright. 2, A. Bilyeald. 3, J. B. Hicks.

*Fowls*—*Any colour*—*Hens*—1, Mrs. Ladd, Calne. 2 and 3, F. Graham, Bradford. 4, W. A. Ashley. 5, Mrs. Ladd.

*Fowls*—1, H. Yardley. 2, T. Hives, Cotgrove. 3, J. D. Hamwayte, Nottingham.

*Towhees*—*Any other variety*—1, H. Yardley. 2, A. & W. H. Silvester. 3, Master Oates, Newark.

*Dracoonas*—*Blue or Silver*—1, H. Yardley. 2, F. Graham, Birkenhead. 3, E. Woods. 4, R. Woods. 5, F. Graham. 6, R. Woods. *Any other colour*—1 and 2, H. Woods, Manchester. 3 and 4, F. Graham.

*Dracoonas*—*Young Cock or Hen*—1, W. Smith, Walton-on-the-Hill. 2, C. E. Chavasse, Sutton Coldfield. 3, F. Graham. 4, D. Young. 5, C. E. Chavasse. 6, R. Woods. 7, F. Graham. 8, W. Smith.

*Fantails*—1, S. Swift, Duffield. 2 and 3, J. F. Lovelidge, Newark. 4, T. Hives.

*Tourterres*—1, Master Oates. 2 and 3, H. Cartwright. 4, G. W. Dutton.

*Owls*—*English*—1, E. H. Unsworth. 2, T. G. Serrat, Blandy Road, London. 3, J. D. Hamwayte. 4, H. E. Unsworth. 5, A. Parsons. 6, J. D. Hamwayte. 7, E. Cartwright. 8, E. W. Van Benden.

*Fagons*—1, J. B. Hicks. 2, T. Holmes, Lower Sydenham. 3, D. C. Woodhouse, Nottingham.

*Tourterres*—1, T. Holmes. 2, H. Beldon. 3, H. Yardley. 4, E. Hives.

*Antwerps*—*Short-faced*—1 and 2, H. Y. Aley. 3, C. Gamon, Chester. 4, C. Gamon. 5, F. Herrieff. 6, Lingard. 7, Kendrick, jun. 8, Longwood. 9, C. Gamon. 10, H. Lane, Bulwell. 11, G. F. Herrieff, Banbury. 12, C. F. Herrieff. 13, E. Beldon.

*Any other variety*—1, H. Draycott, Leicester. 2, H. Yardley. 3, H. Cartwright. 4, C. F. Herrieff. 5, A. & W. H. Silvester. 6, Jacob. 7, H. Yardley.

*Shilling Class*—*Price not to exceed 5s.*—1 and 2, F. Hutchinson, Spalding. 3, F. Cooke, Nottingham. 4, H. Yardley. 5, F. Cooke.

*Shilling Class*—*Price not to exceed 5s.*—1, A. & W. H. Silvester. 2, H. Draycott. 3, J. Smith, Sheffield. 4, F. Hutchinson. 5, R. B. Wood.

*Judges*—*Poultry*: Messrs. Hewitt and Dixon. *Pigeons*: Messrs. Esquillant and Charlton.

#### MONMOUTH POULTRY SHOW.

This Show was held on Wednesday, the 25th ult. The birds were shown in Turner's pens.

Dark Brahms came first on the list. The first was a very 1 and in Antwerps were some crack birds, the winners Short-faced

feathering; second is next; two grand class. In *Dorkings* he cocks were only sites, second Buffs. Oréves was first, as made only two pens; 1 of feather. *Hambro* cockerel with a pond pen. In *Gold-pens* were beauties. The first in *Silver* the moult; second glad all through, the east; third the pullet *Silver-pencilled* only pen, and those out rest, and second and ood lot; the cockerel pond and third pens pen of *Silver-faced* liver third; several nmenations. Any k *Hamburgs* came sbury *Ducks* good. of White Call were good *Light Brahms* ys and *Gees* good, he prise cards on as ything in order for

east. 3, E. Fritchard, W. Morris, Rose. *Light*, h, Worcester. 4, Mrs.

4, 3, J. Robinson, Gar-

ster. 5, T. A. Dean. 6,

ary. 7, S. W. Thomas,

bre. 8, J. Robinson. 9, rminster. 10, Robinson. 11, J. Robinson. 12, Mrs. Bells. 13,

4, H. P. Powell. J. Robinson. 14, D. G. Melnes, Wallasey. 15, J. W. Lloyd, Kingston. 16, Stroud. 17, Ac. J. Mayo, ock, Kaysham. 18, T. F.

Rev. N. J. Ridley, New-

Mrs. Bailey, Rosedale. alley. 19, E. Shaw, Rouen. 20, J. Robinson. 21, H. Feast. Mrs. Rolfe (Silver Pe- go Cock). 22, Mrs. Rolfe. 23, E. Feast. 24, E. Harris

Baschurch, Salop.

ULTRY, &c.

the outside of the 1 was fortunate, as ere Turner's, their ut veteran fancier re well cared for. ark Greys, *Cochins* pens of rich Buffs. ickens, and second r-trimming. *Game* r, the first going to a pair scarcely as ld Brown Reds, the nout. *Hamburgs* were Spangles, the ; second was a nice ; pen of *Hamburgs* Pencils. In Game md Piles, both fair y other variety of lly good. In the , Oréves-Cours, and respect, first going and third *Bons*

n the poultry. In nd Duns, both very Fantails very good, he winners Short-faced



**Silver Duns.** Jacobins were very bad, except the first-prize Reds. In Pouters first were grand pair of Blues, beautiful White running them very close. In the Variety first were smart Pigmy Pouters and second Blondinettes, the rest being poor, with the exception of the first-prize Barbs and the first Selling class, a very cheap pair of Spangled Ice Pigeons.

**Rabbits** were poor, except the first Lop.

**Doves.**—1, W. Harvey, Sheffield. 2, Burch & Boulter, Sheffield. 3, J. Bedford.

**SPARKER.**—1 and 2, Burch & Boulter. 3, Collier, Smithy Wood. **COCHIN-CHINA.**—1 and 2, W. Harvey. 3, J. Denton, Raisen Hill. **BRAMHES.**—1, J. F. Smith, Sheffield. 2, W. Harvey. 3, J. Heeley, Epworth, Huddersfield.

**GAME.**—1, W. Burton, Thurgoland Bank. 2, T. Johnson, Ecclesfield. 3, M. Stringer, Ecclesfield. 4, J. Denton. 5, C. Travis, Thurgoland. 6, G. Hudson, Shiregreen. 7, E. Hemmingsfield, Ecclesfield. 8, C. M. Smith.

**HAMBURS.**—*Golden-pencilled* or *Red*.—1 and 2, Burch & Boulter. 3, J. Glossop, Rotherham. *Silver-pencilled* or *Spangled*.—1, W. Harvey. 2 and 3, H. Crookes, Ecclesfield.

**POLANDS.**—1 and 2, A. & W. H. Sylvester. 3, J. Heeley. **ANY OTHER VARIETY.**—1, E. Brown, Sheffield. 2, Capt. E. M. Mills, Butterthwaite. 3, A. & W. H. Sylvester. 4, O. Sidsard, Keighley.

**BARBAMS.**—*Game.*—1, W. Harvey. 2, R. J. Bennet. 3, G. Hattersley, Greenbrough; W. Shaw, Grange Mill. 4, O. Hemmingsfield, Ecclesfield. 5, F. Holt, Stainforth, Dewsbury; W. Bailey, Ravenfield. *Any other variety.*—1 and 2, H. Ashton, Mottram; Manchester. 3, W. Harvey. 4, A. & W. H. Sylvester. 5, J. Earnshaw, Rotherham; Burch & Boulter.

**SELLING CLASS.**—1, Burch & Boulter. 2, A. & W. H. Sylvester. 3, E. Brown; T. Johnson, Ecclesfield; W. Harvey.

**TURKEYS.**—1, W. Hannam. 2, J. Pearson. **GESE.**—1 and 2, W. Shaw, Grange Mill. 3, J. K. Shaw, Shiregreen, 4, B. Makin, Norwood Rise. 5, J. Shinkinsfield. 6, J. Shinkinsfield.

**DUCKS.**—1 and 2, J. Denton. 3, A. & W. H. Sylvester. 4, C. Turner, Broadfield, Heeley, Sheffield. 5, F. Crawshaw, Longley. 6, J. Pearson; G. Walker, Rotherham. 7, C. M. Smith; J. Bedford.

#### PIGEONS.

**CARNIERS.**—1 and 2, W. Harvey. 3, E. Brown, Sheffield. **TUMBLERS.**—1 and 2, A. & W. H. Sylvester.

**FANTAILS.**—1, J. Smith, Walkley. 2, E. Brown. 3, J. Smith; E. Brown. **ANTWERPS.**—1 and 2, W. Harvey. 3, J. Smithers, Sheffield.

**JACOBINS.**—1, W. Harvey. 2, J. Earnshaw, Rotherham. 3, A. & W. H. Sylvester. 4, J. Smith. **POUTERS.**—1 and 2, W. Harvey. 3, E. Brown.

**ANY OTHER VARIETY.**—1 and 2, A. & W. H. Sylvester. 3, E. Brown. 4, J. Earnshaw.

**TRUMPETERS.**—1 and 2, W. Harvey. **OWLS.**—1, J. Vaughan, Walkley. 2, A. & W. H. Sylvester.

**SELLING CLASS.**—1 and 2, A. & W. H. Sylvester. 3, J. Earnshaw. 4, J. Earnshaw; W. Harvey. 5, E. Hill; E. Brown.

#### RABBITS.

**HAYVEST.**—1, J. Heeley, Epworth. 2, W. Allinson, Sheffield. 3, H. Stephenson, Longley.

**RABBITS.**—1, H. Stephenson, Longley. 2, W. Allinson, Sheffield.

**JUDGE.**—Mr. E. Hutton, Pudsey, Leeds.

### THE JACOBIN.

I HAVE read the articles of Messrs. Huie, Ure, and Harrison Weir with no common interest, and though not quite agreeing with them as to what a Jacobin ought to be now, yet this I am sure of, they have described exactly what a good Jacobin was thirty or thirty-five years ago. Historically, then, they are no doubt correct, but it is of course an open question as to whether the Jacobin of to-day is an improvement upon his predecessor. In some respects I think he is, in others not. I have at this time in my loft birds of the strains, and from the studs of Messrs. Fulton, Vander Meerch, Captain Hill, and Heath. These birds are of various types and sizes, showing how different good birds of the same variety may yet be. There are in my opinion three things which must be borne in mind in regard to improvements in any class of fancy Pigeons: 1st, What the bird was in olden times as shown by the old authorities, particularly Moore; 2nd, Whether the improvement is merely something that is difficult to breed, which I call a mere fancier's beauty; 3rd, Whether it is at the same time a true beauty.

I think the very high out in Jacobins is an instance of the second, but directly contrary to the other. As regards real beauty, I mean artistic beauty as opposed to fancy, there can be no doubt that a Jacobin with a little rim of clear white coming neatly under its chin is a much prettier bird than one with the dark colour right up to its beak. The very high-out birds have, to my eye, a kind of choked appearance, and the head is not bald, only the top of it. I am glad to find that Mr. Fulton does not condemn low-out birds, and candidly owns "on the average we certainly think the best birds we have seen in hood, main, and chain have been clean-thighed and low-out."

This brings me to the "clean thighs," which I must say upon great consideration and watching the birds closely I now prefer to the dark thighs. It is said that this marking gives a Baldhead-Tumbler look. My answer is, Not the marking, but the present stumpy shape of so many of the birds—so opposite to the old birds which were not Tumbler-shaped, but "slim in girth," as says Mr. Ure, and "long and tapering from the shoulders," as says Mr. Huie. The clean thighs were liked by Brent; and the pair from the pencil, I believe, of Mr. Harrison Weir in Delamere's "Pigeons," published by Routledge, are so marked, while I own the majority of illustrations are the opposite. Still the thighs are so seldom wholly dark that the clean thigh marking lingers in the blood of the bird, and I think the birds are more artistically beautiful with the coral legs and feet coming out of the white thigh; their clean thigh and bald head seem to go properly together in Pigeons. The old books are quite silent on

this point. Regarding the rose, Mr. Esquilant as long ago as 1867 spoke of that property in print, as well as the mane.

Although not an exhibitor, I should be pleased to give towards a prize for Mottled Jacobins as near the old type as possible, the judge to be Mr. Harrison Weir. Perhaps others would join me; and if we lived to see the Crystal Palace Show of 1876 the plan might be carried out then and there. I am sure with Mr. Huie the Light Mottles were the best birds of the old style, and whether looked at with the eye of a fancier or an artist they were as to shape and colour extremely pretty—soft, silky-feathered, slender long-flighted birds, with a very clear pearl eye and small head, and not a trace of the Tumbler form in them, which the solid-coloured birds so frequently have now-a-days. The mane and rose I accept as great improvements upon the old type of bird.—WILTSHIRE RECTOR.

### NORWICH AND NORFOLK BIRD SHOW.

It may appear strange to many—it does somewhat to me—that within the short space of a month two all-England bird shows should be held in the same city, the one I am now chronicling bearing the title of the "Norwich and Norfolk Ornithological Society," and the other to take place the latter end of the present month, known for the past two years in the bird world as the "East Anglian Association." But there is no accounting for these freaks, if such they may be termed. It has been truly said, "All the world's a stage." So it is, and as the performers become more numerous so will each section require a stage to perform upon. As with a hive of bees which becomes overstocked, a new colony is established under a new queen. The same with bird fanciers when there are too many to serve under one head or government. But these matters of rivalry are not confined to the city of Norwich. Whether it be wise for the holding of the two exhibitions is not for me to determine. It appears that the new Society has found an able leader in the person of Mr. Hovell, who with a practical Committee of Management brought to bear an Exhibition of no mean kind; and that it is intended to be carried out annually there appears no reason to doubt, judging from the wording of the title-page on the excellently-compiled catalogue, which announces it as "the first great annual Exhibition."

I was glad to learn that the patronage—that of royalty, too, by-the-by—and support received was sufficient to encourage the able Honorary Secretary in issuing a schedule sufficiently attractive for fanciers to enter largely if so disposed. But no doubt the very early period of the Show taking place was, to a considerable extent, a drawback so far as entries were concerned, for only five exhibitors effected entries in each of the two Clear Norwich classes. This to me was more surprising when I come to reckon-up the number of exhibitors residing in the city. Out of seventy exhibitors in the entire Show no less a number than thirty-six were residents of Norwich, the remainder being distributed over other parts of England. No doubt the entries would have been more numerous had the Show been deferred to a later period of the season. Notwithstanding, the promoters were deserving of all the encouragement received, and more than that.

The plants and shrubs used for decorating the hall were kindly supplied by Messrs. Ewing, of the Royal Nurseries, Eaton, and Messrs. Daniel Bros. of the Royal Seed Establishment, Norwich. I have witnessed bird-show rooms furnished more extensively with birds and cages than the late Norwich Exhibition, where many hundreds of them have been massed in lines together upon the stages without any relief to the eyes. To this the bird-breeding and bird-exhibiting sons of the cause have little objection, for when they visit a bird show it is very little else that interests them beyond their particular pets. Still I like to see some taste exercised in setting out a show-room, and in that particular respect everything that could be wished for was witnessed at the Victoria Hall on the 24th, 25th, and 27th ult., the week of the holding of the great musical festival or festivals, for the birds were a festival of themselves. Betwixt the two last days of the Show Sunday intervened—a day of rest, I trust, for those who had been so previously taxed in their exertions to make the Exhibition worthy of the bird-fancying sons of the city.

The prize list of awards having been printed in the Journal of last week, it would be useless going through the whole of the classes. Suffice it to say, that considering there must have been some demand upon the attention and patience of the two Judges, that if any error occurred it must have been an oversight. Perhaps that will be the best way of summing matters up, although I should have been more satisfied to have found the first-prize a Clear Yellow Norwich instead of a Ticked one. But every one is liable to a mistake, some more than others, and so I thought "Mr. William Evans, of 6, Brazil Street, Lower Broughton, Manchester," when his Golden-spangled Lizard (No. 180) was proved to have been painted about the wings!

Throughout the Norwich, Crested, Cinnamon, Yorkshire, Belgians, Coppies, and Plain-heads, Lizards, Mules, and British



and foreign birds, there were numerous fine specimens exhibited. Amongst the Norwich birds in particular some were very "tall" indeed in colour, most of the principal prizes being claimed by Norwich fanciers, Messrs. Frowart & Willis and Messrs. Mackley. Mr. Adams took four prizes in Norwich, besides a first for a splendid Buff-crested bird. In the Lizard classes Messrs. Bunting and Fairbrass were the chief contestants, the former for choice. Mr. Thackrey was the chief winner in Yorkshire birds, Mr. Shackleton going in strong with Lancashire, Mr. Thackrey won the Treasurer's cup, and Messrs. Mackley the Mayor's cup, besides the tradesmen's cup. The chief exhibitor and winner with Cinnamon birds was Mr. Adams, with his high-coloured specimens, which have no more lost their natural colour than did the Norwich birds at a show some two years back in the north of England, when the public were invited through the medium of posting-bills to "go and see the wonderful Canaries." If they be wonderful in one instance, why not in the other? Belgians—especially Mr. Reid's—were good.

The fight betwixt the Mule exhibitors lay with Mr. Bunting and Messrs. Mackley. The latter proved the victor, although one particular bird (a Buff), and I might say another (a Yellow), were the plums in Mr. Bunting's lot; but the Yellow Mule is now dead, and if I mistake not Messrs. Mackley also sustained the loss of a good Mule bird.

I will conclude by stating that Queen Polly, a talking Parrot belonging to Mr. Barrow of Monkwearmouth, won a silver medal as the best talking bird in the Show.—Quiz.

### A BATCH OF QUESTIONS.

UNDER this heading I think it will be well to answer a number of questions forwarded to me by the Editors. It is exceedingly pleasing to me to see so many readers of the Journal anxious to comprehend the full meaning of all that is written in it. In our anxiety to be brief and occupy little space we sometimes fail to make ourselves understood. For instance, Mr. John Davies does not understand what Mr. Pettigrew means by the following sentence in his letter on Bee Gossip—"The combs containing brood are put into a hive or box, and bees put amongst them to hatch the brood." I do not understand how this can be done. How can these brood combs from different hives be fastened in one hive or box? for fastened they must be, I presume. No, they are not fastened, but simply laid in either on their edges or broadsides, with little bits of sticks or combs to keep them asunder. The combs containing young bees or brood rest on the bottom of the hive or box, and have a lid or board placed over them. The bees speedily adopt the combs, fasten them together, and hatch the brood in due time.

We do not think that the statement which Mr. Davies has found in a number of a popular journal is true—viz., that "the honey extracted from the flowers of dahlias is certain death to bees." We grow dahlias, but never find them hurtful to bees. We hope that Mr. Davies will not be influenced by the statement and cast away his dahlia roots.

"L. J. K." who has resolved to commence keeping bees in a small way, may purchase them at once and have them wintered in her own garden. Hives are generally higher in price and more difficult to find in spring than they are in autumn. Both the Ligurian and the common bees are good workers; it has not been proven which is the better sort. Bees will thrive in a Woodbury or other hive for two or three years, and may be removed from it without resorting to the brimstone slaughter.

"Is there any truth in the popular idea that bees never do well in a place to which they have been brought across the water?" "L. J. K." lives across the Thames from Reading, and she is told her bees must come from Oxon, not from Berks. Is there truth mixed with the fable? There is no truth at all in it. Bees that have been bought do as well as those that have been given; and those that come across the water and those of Berkshire are quite as good and eligible as those of Oxon or anywhere else.

"B. B." seeks explanations of certain passages in the "Handy Book of Bees." 1. On page 183, second edition, it is stated that "when hives are less than 80 lbs. in weight the bees are taken from them by a speedier mode than driving. We shake them out in less than half a minute of time." "B. B." succeeded in shaking the bees from the combs in this way, "but as soon as they found themselves in the empty hive they rose on wing and covered him." Of course the sudden and unexpected shake startles the bees and makes them fly. This often happens; but knowing it, we cover them speedily with a board, and thus prevent them from flying. By placing the hive with the bees on the spot where the old hive stood the bees outside enter it at once. This operation is all the work of a minute. If done in the evening or on a cold day the bees that rise on wing sit down on the operator or other object near, as they do in natural swarming when a cloud comes before the sun. If they commence to alight on me in this or other operations they are shaken off, and I go out of their way for a minute.

2. The picture on page 64 representing "two boards marked for sawing out of a deal board" is meant to teach how little wood is wasted in making bee boards. "B. B." asks if these boards as marked can be cut out with an ordinary saw. I answer that they are easily cut out with a narrow saw, such as carpenters and wheelwrights use for such work. A common saw cannot follow the circle.

3. The picture of the feeding board and trough as seen on page 114 is sufficient to guide any tinsmith to make such boards, troughs, and cisterns. The top of the trough of the feeding board is on a level with the board itself. "B. B." is quite right in supposing that the cistern and smaller feeder are meant to be used at nights.

4. "How is it possible to make straw covers look as neat as those in the picture on page 66?" If "B. B." will give a commission to any handy man about a farm to cover his hives after the pattern of the book he will have this work done to his satisfaction. Or he may do it himself by combing a bunch of clean straw with his fingers, laying it as straight as he can, and tying it very tightly at the narrowest end; then dip it in water, spread it over the hive, hoop it on with an iron or wooden hoop, and clip it neatly. We have seen many quite equal to those of the picture.

Lastly, "B. B." asks, "What should be the gross weight of Pettigrew hives, 14 inches and 16 inches respectively?" I presume he means when they are filled, and measure about 12 inches deep. 45 and 60 lbs.; but if they now weigh 80 lbs. and 86 lbs. respectively they have honey enough in them to keep the bees alive till the end of March next year.

"J. H. E." has reason to suspect that a Pettigrew skep has within the last week become queenless, and wishes to know how he can most simply and satisfactorily ascertain if this is so (without driving preferred). And supposing a queen is reared, is it probable she would be fertilised at this season? It is rather difficult to teach others how to discover the symptoms of a lost queen. If the bees are rearing a young queen there will be no external manifestations of their loss. If there are queens set in royal cells they may be seen by an internal examination, and their existence will indicate with certainty that the old queen is dead or about to be dethroned. If the royal cells are empty and the hive without a queen, the bees may be found now and then running about the hive, both inside and outside, making a great noise, which indicates their grief and loss. Bees bereft of their queens, and without eggs in their hives, are easily thrown into fits or paroxysms of grief or lamentation by disturbing their hives. During these fits their grief is manifested in a very violent manner. If it comes to it at last, "J. H. E." may easily drive or shake the bees from his hive to see if they have a queen. If a young queen were reared now, the probability is very great that she would remain unfertilised and useless.—A. PETTIGREW.

### HONEY SEASON NEAR LINCOLN.

A SWARM of June the 5th, weight of hive 5 lbs. 6 ozs. June 8th, weight of hive and bees 10½ lbs. To July 8th I had given 5 lbs. of sugar, with five pints of water. On the 8th they had clustered outside of the hive, so I cut a hole in the top of the hive, and put a glass super on. Up to the 19th the bees did not take to it, so I replaced it with a bar-frame super made of 1-inch wood, 6 inches square, and 6 inches deep, with four bars, each an inch wide. July 18th weight of hive and bees 21½ lbs. To July 28th I had given 11 lbs. of sugar. The bees began to build in No. 2 bar from the east side. August 3rd, twelve young bees out dead; 8th, a great number of drones out, and honey in super, a few young white drones and bees out dead; 16th, bees began to kill all the drones, and began to fill No. 8 bar; 18th, began to fill No. 1 bar. Up to the 24th I had given 18 lbs. of sugar, weight of hives, &c., 40 lbs., so I took off the super, and No. 2 bar weighed 1½ lb., some of it sealed up. On the 25th I gained a prize at the Bracebridge Show; 26th, replaced the super, gave 1 lb. more sugar. September 6th, weight of hive, &c., 44 lbs.; 7th, took off the super again, No. 2 bar weighed 1 lb. 8 ozs., so I kept it off, as I found the bees were plundering it. September 17th, weight of hive and floor-board 39 lbs.; the weight of hive I allow 5½ lbs., and board 5½ lbs. The bees are numerous and strong, but they are quiet this month. I think the weight of bees and honey, 28 lbs., will be sufficient to carry them through the winter without any more feeding; 18th, I noticed them very busy to-day carrying in pollen, so I judge they are breeding yet.

I have visited a friend four miles from here who had fifteen hives; all the swarms are light. They had only three parts filled the hive with comb. I think they had no more than 3 lbs. of honey in each (they always suffocate them to take the honey), so I offered to drive them, and very pleased they were to have it done, and gave me the bees for my trouble. On the 9th I drove one swarm (at 6 p.m.), and joined it to the next one (a swarm). The next was an old stock, but I could only get part of the bees out, and the next one I succeeded in a little

time, and joined the two together, and carried them home at nine o'clock.

I then took my bar of honey from my super, and placed it in the top of an empty hive, and turned the bees to it. I have fed them from an empty box below, and they have built two large combs each side of the bar, and they are doing well. They have had 5 lbs. of sugar and five pints of water up to to-day, the 18th.

On the 11th I again drove the hive with little trouble. There were over 20 lbs. of honey and some young brood, so I placed it in an empty hive (with string), and drove one more, and joined the two together; and drove one more swarm, and joined the next one to it, and all are doing well. On the 18th I drove one more, and joined it to the next one, and I have two hives out of three for myself. Both are doing well.—J. M.

### OUR LETTER BOX.

**ATLEBURY SNOW (J. C.).**—There is no error; the award is as you state it should be.

**POULTRY FARMING.**—*"Gallinaculturist"* would oblige several correspondents by more details of management.

**WRIGHT OF DORKINGS (Constant Reader).**—You do not give the age of the Dorking cock. It is considered good growth if in an ordinary way a cock puts on 1 lb. per month, but that is not sufficient to win with. A bird eight months old, good enough to win in November, should weigh 9 or 10 lb. If the competition is close and the show really a large one. A 9-lb. cock chicken in really good feather, with a bright upright stiff comb, clean white legs, and well-defined five toes is hard to beat. But at many shows that dub themselves "grand," and inform all England they are at liberty to compete, a Dorking cock of 8 lbs. "walks over." The pullet should weigh from 6½ to 7 lbs. Here again condition goes a great way. A competent judge should always take age into consideration, but it must be remembered there is but one restriction, that the competitors shall be birds of the year, and that, given equal symmetry and condition, the heaviest bird must win. There is no weight agreed upon for Call Ducks. It is unnecessary there should be, because the smaller they are the better. Large size would be detrimental to success, so would be long head or bill, or white plumage, or a white ring round the neck in the Duck.

**TURKEYS UNHEALTHY (H. G.).**—Your Turkeys are suffering from the change of weather. There will be many complaints now both of fowls and Turkeys; as the weather gets colder the nights are longer, the surface of the earth alters, and yields no longer the same amount of natural food. The fowls and Turkeys find the effects of it. It is so with yours. The cure is to change the dietary, and to add somewhat of stimulant till they are accustomed to the change. Give them soft food; it is more nutritious and cheaper than whole corn. Let it be oats and barley in equal quantities, with one quarter of pea-meal all mixed together, slaked with water or milk. If they have a daily meal of stale bread soaked in ale it will do them good. It is only inflicting needless suffering to open the swelling round the eye. It is the result and symptom of disordered health, and will disappear as strength returns. They should be fed three times per day while they are out of condition, and always if they are to do well. They should roost in a dry place.

**BRAHMA FOWL UNHEALTHY (A Fifteen-years Subscriber).**—The bird has been allowed his liberty too soon. Any black discharge must be carefully removed with a sponge. If there is any gaping of the incision, and if it shows ragged edges, they must be removed with very sharp scissors; the lips must then be brought together, and the wound and suture completely covered with stiff grease. This must be continued. The bird should be confined where it can have nothing but that which is given. The food should consist of stiff gruel and ground oats mixed with milk. All food for the present must be liquid. If you have no ground oats give bread crumbs soaked in milk.

**PIGEONS (J. E.).**—The Rock Pigeon has nearly always enjoyed the prefix of "blue" to its name, but we believe genuine Rocks are often found varying from blue to blue-checker, and from red to red-checker, and mealy; these latter are rare. Years ago, when the Rock Pigeon was abundant in Lincolnshire and Yorkshire, many hundreds were sent to Leadenhall, and there were always as many Blue-checkers as Blues. Very few real Blue Rocks are now sent to the London markets; the majority of the Pigeons there sold as Rocks are foreign. The wild Dove-house Pigeon you mention is the Rock of more or less purity of breed. If your Pigeons are imported Antwerp, it is more than likely they have been accustomed to roost out. Many breeders in Belgium make their birds do so. Your disturbing them night after night would make them very shy of the lookers for some time.

**SICK PIGEONS (—).**—Bathe their eyes with alum and water night and morning, wiping them with an old silk handkerchief. Cold and damp are the causes, particularly draughts of air. Pigeons will bear any amount of warmth and like it, but no cold draughts. Often the lofts are over-ventilated. A touch of oil would prevent the eyes from closing at night.

**CANARIES DYING IN A GREENHOUSE (A Subscriber).**—Upon referring to the Journal of September 9th, page 340, you will find remarks concerning Canaries kept in a greenhouse, therefore it will be unnecessary for us to travel again over the same ground. Respecting the loss of your two birds, one of which "has died suddenly without any apparent cause," we should attribute the loss of the birds to the seed becoming poisoned with the excrement from the vermin, for in your letter you further state, "I am much troubled with mice getting in the seed boxes." This gives very little doubt. From your description of the greenhouse we imagine it to be proof against rain and cold winds, especially as it is well roofed, and "has walls on all sides but the south." You will have to declare a war of extermination against the fierce-eyed pests, or you will not be successful with your feathered pets. The birds being kept in an aviary cage will afford you the opportunity of laying traps and poison for the mice during the night time, and to better ensure success each night remove the seed boxes from the cage. We should not advise you to paint the wires—white lead is poisonous. Continuous and excessive dampness will do your birds harm. The place will not be too cold for them.

**CANARIES SHORT OF BREATH (Stamford).**—If the nostrils of the birds are affected or clogged they will show outward signs of humor, but if they appear in a healthy state no outward application will be needed, and there will

be no necessity to pass a small quill feather through them. The "suffocating" or shortness of breath proceeds from the air passages or breathing organs, which have become impaired through cold or influenza. Remove them from the other birds into a spacious cage, and place in a dry atmosphere a few degrees warmer during illness. Let them have grit sand (so that their gizzards may perform their necessary functions), a bath daily, and let all seed be well sifted before supplied. Mix or sprinkle over the seed before giving it a pinch or two of flowers of sulphur. Once or twice a-week give a drop or two of cod-liver oil, and daily let them have as much of the plantain weed to pull as you can obtain for them. It is plentiful just now. A little watercress is good. No sweets, or you will make the breathing more difficult. A piece of salt to peck at will tend to clear their throats. Bisulphite soaked in sherry give twice a-week. Alternate the diet. Keep the birds as quiet as possible, and when you require to catch them darken the cage with a cloth, which will prevent much scolding and excitement.

**CANARIES CASTING THEIR FEATHERS (W. M. Gross).**—In reply to your questions we give the following:—1. The Canary, Goldfinch, Linnets, Mules, and all other cage birds should cast all and every one of their feathers every year after the first year's moult. 2. They throw their flight feathers annually—every one of them—from the smallest of the tertials, which are those next the body of the bird, to the secondaries, which form the middle of the vane, and to the primaries or quills which form the flying feathers of the wings. According to the natural order of things birds should become possessed with entire new feathers once a year. If through artificial temperature a bird should have a partial moult out of its proper season, there is the bare possibility that it will not cast the whole of its feathers as free as one which has not been so subjected. There are well-known instances when birds pass over the autumn or proper moulting time without casting their feathers. Such cases are exceptional and unnatural. Then it is a sign that the system is failing to act properly. The birds are feather-bound owing to a defective state of the blood. When this happens the birds should be removed from the position they may have occupied either into a warmer or colder atmosphere for a few weeks; and if this does not bring about a change or looseness of feather, ten to one the birds' health will become so impaired that they will either quickly die or become lingering sufferers. When birds are healthy and well they begin to get loose in feather the end of June or in July, especially following intense heat. The first symptom is the falling of a flight feather or two on the cage bottom. If you take the birds in your hand and examine them, most likely you will find the sixth or seventh primary quills deficient, and perhaps new ones shooting forth. If the birds should be up breeding it will be useless letting them continue to breed, for the reason that the hen's eggs may become unfertile; and if not, it is unwise breeding from parents when they become sickly. A general looseness of feathers speedily ensues. The most difficult feathers for birds to cast are the two or three extreme flying feathers. Sometimes it is necessary to draw them.

**DRIVING BEES (A Constant Reader).**—Generally speaking there are a few stragglers left. If the hive with these is so placed at the door of the swarm hive (driven bees), the stragglers will run to the noise. Sometimes the brimstone is used to remove those that refuse to leave the comb. In cold weather bees are loth to leave their combs, and therefore difficult to drive. In such weather the combs should be sprinkled with syrup about fifteen minutes before driving; begins. The syrup thus given makes the bees quite jolly, and causes them to run as readily up into an empty hive as they do in summer.

### METEOROLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
	Barom. at sea and Sea Level.	Hygrom- eter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
		Dry.	Wet.			Max.	Min.	In sun.	On grass		
1878.	Inches.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	In.		
We. 30	29.837	53.1	50.1	W.	56.5	63.0	44.1	107.3	40.3	—	
Th. 30	30.036	55.1	51.0	N.W.	54.8	62.1	45.8	108.7	42.6	0.075	
Fri. 1	29.976	58.0	56.0	S.W.	55.3	62.8	48.3	71.5	42.7	0.288	
Sat. 2	29.699	54.5	54.1	W.	56.5	61.3	54.0	91.6	48.1	0.410	
Sun. 3	29.930	53.8	50.8	W.	54.3	57.7	48.7	65.5	48.5	0.526	
Mo. 4	19.778	62.0	59.0	W.	54.0	67.0	59.0	86.0	49.5	—	
Tu. 5	29.828	63.0	59.9	S.W.	56.8	70.9	57.9	109.0	54.9	0.300	
Means	29.861	56.8	54.4		55.4	61.4	49.8	91.2	46.4	1.188	

### REMARKS.

29th.—Very fine morning; dull about noon; fine afternoon and evening.  
30th.—Brilliant morning; dull about 2 P.M., but fine afterwards.  
Oct. 1st.—Rainy morning; dull and cloudy with showers all day, but not heavy showers; rain at midnight.  
2nd.—Rainy morning; showery all day, but bright at intervals; fine evening and night.  
3rd.—A thorough rainy day, a constant mistle rather than heavy rain.  
4th.—Very rainy at 8 A.M., but cleared off before 11; bright and fine for an hour or so, then cloudy and rainlike; but fair all the afternoon and evening.  
5th.—Cloudy early; fine about noon, and very bright for an hour or two, but suddenly becoming very dark and stormlike; a short but very heavy shower just before 4 P.M., with some hail; fair after.  
A dull damp week, very little sun, and rain almost every day. The temperature generally about 8° below that of last week; but the mean maximum in sun was 7° lower than last week, and 18° lower than the preceding one.—G. J. SYMONS.

### COVENT GARDEN MARKET.—OCTOBER 6.

THE present damp weather is sending large quantities of both house Grapes into the market, which otherwise would have been retarded, keeping prices much the same. We are also well supplied with late Peaches, these being as good as we have known them for years. Peas consist of Marie Louise, Gansel's Bergamot, Louise Bonne de Jersey, and Duchesse d'Angoulême; and of Apples Ribeton, Cox's Orange, and Blenheim Orange Pippins. A cargo of St. Michael's Pines arrived during the week, but in very bad condition.

## WEEKLY CALENDAR.

Day of Month.		Day of Week.	OCTOBER 14—20, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.		Clock after Sun.		Day of Year.
Day.		Night.		Mean.	m. h.		m. h.		m. h.		m. h.		m. h.		Days.		m. s.		
14	TH			59.9	40.5	50.2	24	af 6	8	af 5	55	af 4	38	af 5	16	18	55	287	
15	F	Virgil born, 15 B.C.		59.0	40.5	49.8	26	6	6	5	10	5	57	6	16	14	10	288	
16	S	Vallensius died 1780.		59.0	40.1	49.5	27	6	4	5	29	5	29	8	17	14	22	289	
17	SUN	21 SUNDAY AFTER TRINITY.		58.8	40.7	49.8	29	6	2	5	55	5	4	10	18	14	34	290	
18	M			60.4	40.7	50.6	31	6	0	5	34	6	35	11	19	14	46	291	
19	TU	Alexandra Palace Poultry Show commences.		59.4	41.7	50.5	38	6	57	4	31	7	after.		20	14	57	292	
20	W			59.0	39.3	49.1	34	6	55	4	44	8	51	1	21	15	8	293	

From observations taken near London during forty-three years, the average day temperature of the week is 59.2°; and its night temperature 40.5°.

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## AUTUMN WORK.



**W**HAT a relief to the flower gardener to bid farewell to the summer of 1875—if such a season as we have had is worth the name—when all his ingenuity, his time, and strength have been exhausted in an ineffectual attempt to produce something like harmonious colouring! The work has been quite double to that of ordinary seasons; weeds and grass have grown as they never grew before, while the more tender plants in beds have scarcely grown at all. Now and then we had a gleam of sunshine to cheer and encourage us to make another effort, and again and again as soon as we began to get a little tidy came a thunderstorm or a hurricane, thwarting all our attempts at neatness. Gardeners, however, never give up for trifles, and it is not till October is here that we acknowledge ourselves beaten.

The trees are now putting on their autumnal tints; Elms and Tulip Trees are being arrayed in the brightest of gold, by the side of which our so-called Golden Feather and Golden Chickweed pale into a sickly green. Maples, Scarlet Oaks, and deciduous Cypress quite reconcile us to the loss of our Alternantheras and Iresines. The delicate tracery of our carpet beds, so much admired a short month ago when the woods were verdant, is very insignificant now when we look beyond them and catch a glimpse of the timber-covered hills with such bold masses of brown and gold.

Leaves of every hue are playing about in the gentle breeze as they fall to rustle beneath our feet. What a mistake to run after every leaf with a barrow and a besom as it falls! what a waste of time and a want of taste! Gather them up certainly before they begin to decay on the walks and so discolour them. But, employers, please remember that October is a month in which trimness is impossible out of doors, and if it were not impossible it would still be undesirable. And there is another reason for not insisting on too much trimness in October; it is a month in which the professional gardener has two seasons at once. In one respect his new year begins somewhere about Michaelmas, the same time as the Russian Violet commences flowering. Forcing has to be prepared for in earnest, planting pushed forward with all possible speed—evergreens first, and fruit trees immediately afterwards. Pruning has also to be finished, with the modern gardener, before Christmas, and where there is much to do must be commenced with early. Currants are already fit for the secateur, Gooseberries will shortly be, then Plums, Morellos, and Peaches. After the principal leaves are ripe the sooner such trees are pruned the better.

The secateur, or French pruning-shears, is a very handy little instrument; its total length is about 9 inches, and its weight half a pound. It can be gripped with the whole hand, and consequently does not tire the operator like the ordinary shears; it makes a cut as clean as a

knife, and by its aid the pruner can do his work much faster than with a knife. No one having used it for one season will go without it till a better instrument is invented, which will probably be some time first.

Digging, trenching, potting bedding plants, planting Box-edges, laying turf, storing fruit and vegetables, sheltering tender plants, and a multiplicity of other things too numerous to write of, all want doing now, and it is altogether an exceedingly busy month.

Gardeners generally have a comparatively leisure time of it during August and September. They are enabled to look round themselves at home, and often to make a little tour and pick up useful hints from others of the fraternity; they then begin about October with renewed vigour to work for another year. This year, however, I know many have found it impossible to keep up with their work, and consequently anything like relaxation has been out of the question. This continued-unbroken work is already telling severely on several strong and able men of my acquaintance, and I have no doubt that many more yet will suffer from it. The work is so exciting and so intensely interesting that it is almost impossible for an enthusiast to think of his health while he is behind with his work, and consequently many go on till nature can no longer stand it. I would ask employers, then, if they happen to possess a good and enthusiastic gardener whom they value, to be careful just now and not tax him too much, for there are some hundreds at this moment who if they had another straw placed on their backs would break-down. But enough of this.

Autumn is here. Bright and breezy autumn, I give you a hearty welcome; you shut out of sight for ever our dismal wintry summer; you release me from floricultural millinery, and put an end for a time to my polychromatic disappointments. I go to enjoy my vacation with a spade and a pruning-hook, for the most perfect rest is a change of occupation.—WILLIAM TAYLOR.

## RENOVATING VINES.

By going the right way to work, and setting about it at the right time, it is surprising what great improvement may be made in Vines which are apparently approaching dissolution. I know no plant so tractable as the Vine, and none which answers to the whip, so to speak, so promptly and clearly. Vine borders may be renewed at almost any period of the year, and the roots be taken from an ungenial soil and placed in fresh compost, providing due care is exercised in the work and a correct system of treatment is subsequently given to the Vines by shading, temperature, moisture, &c. The easiest time, however, to do such work is during the present month, before the Vines have cast their foliage, and before the soil has parted with its summer's heat. These are two important conditions, and both are essential to the speedy re-establishment of the Vines.

A few years ago I found it necessary to lift the roots of some old Vines, and my employer found it necessary to warn me that he should expect a crop of Grapes the

following season. The Vines had been bearing fairly well, but each year were losing vigour, and the time of their complete failure was evidently not far distant. I was in a fix; I dare not sacrifice a crop, yet to defer operations of renewing the border was simply waiting for the dreaded year when the Vines would be barren. I resolved to act. I had the new soil ready. It was fresh loam without any admixture. I coveted bones, but they were not to be had; so in their stead I made charcoal by burning all the rubbish I could collect, including the (I may as well confess it) surreptitious use of my employer's firewood.

I then took out the border, and kept the old bare roots moist by syringing them, brought in the fresh soil, and lifted them from their bed of cold clay into one of warmer drier loam. I did not cut them—at least I allowed the point of the main root of each Vine to remain deep down I know not where, still lifting the other part of it as near to the surface as it could be bent. The smaller roots I cut. The main roots I notched at 2-foot intervals, and severed them more than half through at the extremity of the border where they entered the bed of the gravel walk. Each of these roots I surrounded with charcoal, enveloping them 2 inches in thickness on all sides. I covered them with 4 inches of soil and 6 inches of manure, and the work was done. The foliage was on the Vines, and I wished to keep it there to induce the emission of fresh roots. I therefore syringed—autumn though it was—and kept the house somewhat close. The Vines were eventually pruned, and in the spring they broke with their usual weakness; they, however, gathered strength daily, and ripened a finer crop of Grapes than they had done for ten years before, although every particle of soil was taken out of the border in the previous autumn.

In the summer the roots were examined, and bristling from their surface both at the notches and between them were thousands of fat-looking spongioles. I have proved the value of charcoal in many ways, but I never saw such a satisfactory instance of its virtues as in drawing feeders from these fibreless roots. The extremities of the main roots were then severed, and a network of feeding roots permeated the border. These are near the surface, and I intend them to be kept there by annual dressings of manure.

The change was magical. Young canes were trained up, and a new lease of life was given to the old Vines. They had been planted thirty years when their renewal was effected, and certainly they have never been in such a good and satisfactory condition as they are now. My employer is especially proud of them, perhaps more so than I am. He is sensible enough to be satisfied with a great number of one-pound-weight bunches having large black berries, while I am vain enough to covet a few monsters such as we read about. He has ever been firm in refusing me permission to train thinly, crop lightly, and create a sensation, and perhaps he is right, for perhaps I should fail.—A NORTHERN GARDENER.

### PENTSTEMONS: THEIR PROPAGATION AND CULTURE.

PENTSTEMONS are amongst the most beautiful of border plants, and the present is a good time to propagate them. It may not be generally known that the treatment which is usually given to the bedding *Calceolarias* is almost exactly applicable to Pentstemons. It is preferable, however, to put in the cuttings of Pentstemons a little earlier than those of *Calceolarias*, although they will flourish fairly well if inserted at the same time and under precisely the same treatment. I have been uniformly successful in raising Pentstemons by inserting the cuttings early in October by the aid of cold frames alone, and these of the rudest description. These have merely consisted of inch boards set on edge and made firm by stakes, and covered with spare lights. Such boards a foot in height at the back and 6 inches in the front afford a sufficient fall for carrying off the water from the lights, and these rough enclosures are useful for many protective purposes. They are easily covered in the winter with straw, and the plants or cuttings in them are always near to the glass. They are, however, at the best only makeshifts, and only permissible in the frame ground—the back kitchen of the garden—and for appearance sake and general efficiency the low structures manufactured by the advertisers in the Journal are in all points preferable, and should have a place in all gardens.

In striking Pentstemons in these rude enclosures my practice

has been to take out about 4 inches of the soil and replace with a compost of loam and leaf mould in equal parts, and surfaced with sand. Before putting in the soil, however, a layer of soot should be spread, which prevents the worms working upwards, and also affords a stimulant for the plants when they become rooted. The cuttings selected must not be those which are soft and such as would strike in heat readily, but short-jointed semi-woody side shoots, which will flag but little and damp-off scarcely at all after they are inserted. The cuttings inserted 3 inches asunder will neither need repotting nor transplanting before transferring them to their blooming places in April. After being put in it is necessary to shade them during bright weather, and sprinkle them occasionally—in fact they must be kept close and not be permitted to flag. If properly selected and carefully tended very few fail to strike and make fine blooming plants during the summer and autumn months.

In order to grow the plants well the soil must be rich and deep, and the plants need copious supplies of water during dry weather. They are moisture-loving plants, and are generally finer in Scotland than in England owing to the heavier rainfall and cooler temperature of the north. For large beds or rows, as well as for isolated plants in mixed borders, they are beautiful and effective, their glossy foliage, agreeable habit, elegant spikes, and fine *Gloxinia*-like flowers, being a combination of claims which few plants possess.

Great improvements have recently been made in Pentstemons, and each year new varieties are being added to our collections. They are offered in almost all colours, and named collections should be included in all gardens. The present is a good time to secure plants from the nurseries, where they are now rooted and established in thumb pots. These, if shifted into pots two sizes larger and plunged in ashes, and kept safe from frost, will make handsome blooming plants in the forthcoming season.

As plants which can be kept from year to year without the aid of artificial heat, they are adapted to those with moderate conveniences, and cannot fail to be enjoyed by all when seen under good cultivation. They have been much admired in Battersea Park this year, and doubtless we shall see them employed at the Crystal Palace, where plants of every rank and degree appear to be embraced in Mr. Thompson's comprehensive and able management. The more general cultivation of Pentstemons is cordially recommended.—A SURREY GARDENER.

### PEAS.

MR. LAXTON's name will be indelibly written on the page of horticultural history as the raiser of many varieties of Peas of great excellence.

In spring I had sent me for trial four small packages of Peas, and I now somewhat tardily acknowledge their receipt by recording my experience of them in the columns of this Journal. They were sown and treated the same as other older kinds, and adjoining them for facility of comparison. Pampering and giving special culture may bring out merit, but I prefer that a new vegetable be proved under ordinary treatment, and to stand or fall by that treatment to which they will be eventually subjected. The Peas were Unique, Dr. Hogg, Supplanter, and Connoisseur. I sowed them all on May 4th, and all came up strong.

*Unique*.—This was stiff in growth, and commenced flowering when only a few inches high, podding near the ground, growing to a height of 18 inches, being a dwarf grower, very prolific, larger in pod and pea, also better filled as well as earlier than *Little Gem*. The pods were of a bright green colour; the peas about eight in a pod, of a deep green colour and of excellent flavour. The crop comes in all at once and not successively, which is a consideration in growing dwarf Peas, as the ground can be cleared at once and planted with other crops. *Unique* is unquestionably the best dwarf Pea in cultivation, more prolific than *Little Gem*, and of superior quality to any of the dwarf kinds. It will be found an acquisition for small gardens, for growing in pots or forcing, and in front of walls for early crops.

*Dr. Hogg*.—This had pods fit to gather at the same time as *Unique*, but a very different fitness to that of that variety; for whilst *Unique* was over in ten days, *Dr. Hogg* had pods fit for use after thirty days. It and *Unique* had pods fit to gather on the 16th July. *Dr. Hogg* is therefore an early kind, and possesses the continuity of bearing of *Ne Plus Ultra*. The pods were 5 inches long, of a dark or blue green, slightly curved

and very handsome, containing usually nine peas of a very fine dark green colour. It attained to a height of 5 feet. A fine Pea, the earliest and best of wrinkled Green Marrows.

**Supplanter.**—This is very robust, and attained to a height of 4 feet, having very large pods 6 inches long and correspondingly broad. Peas large and of a rich green colour; and though it is of the Imperial class it is fully half wrinkled, possessing a quality equal to any of the latter class, being a large, handsome, and very prolific kind that will supplant many others. The first pods were fit to gather the 18th of August, being nearly a month later in this instance than Dr. Hogg, and it continued in use up to the early part of September.

**Connoisseur.**—This attained to a height of 8 feet and is growing yet, having the rambling growth of *Ne Plus Ultra*. It commenced podding at 2½ to 3 feet from the ground, and producing twenty and more pods upon a stem. The foliage is deep green and enduring, which gives a kind of evergreen appearance to the rows—i.e., plants and seed, being green and having very great resemblance to *Ne Plus Ultra*, but the pods are straight and well filled with about seven good-sized peas of the highest excellence. It is more prolific, more continuous-bearing, and decidedly as a late kind superior to *Ne Plus Ultra*. It had pods fit to gather the 1st of September, and has now (September 28th) upon the same plant pods with ripe seed, some fit to gather, others just slated, and also flowers, which will give an idea of its continuity of bearing.

Now, by omitting *Unique* we have from a sowing of Peas of three kinds—viz., Dr. Hogg, *Supplanter*, and *Connoisseur*, made early in May, a succession of Peas from the middle of July into October. Such a trio for excellence as I have not found before; whilst the dwarf one, *Unique*, is essentially an amateur's Pea of the first cropping and using quality.—G. ABBAY.

#### NEAR AND AMONG ANTEDILUVIANS.—No. 2.

RAPIDLY becoming antediluvian—that is, things of the past—are country pleasure fairs; that of Lyme Regis was on the 5th inst. and two booths for the sale of toys and sweetmeats then comprised the whole! The useful portion of this annual gathering retains its full vitality. Householders lay-in their winter store of Onions on that day, and garden-holders buy the Cabbage plants which are to yield their spring supply. The Onions are sold in "bags," each bag containing six pecks, and hundreds of bags were there. Pickling Onions sold for 10d. the peck of 14 lbs. The best store Onions, averaging 3 inches in diameter, sold for 7d. the peck. The Cabbage plants, a large-hearting variety, were 6d. per hundred.

I have now journeyed over a semicircle round the town having a radius of ten miles, and in all directions the cottage gardens are worthy of praise. The flower beds even at this season are gay, for Fuchsias, Geraniums, Hydrangeas, and Myrtles remain in the beds throughout the winter. Many hedges of *Fuchsia Biccartonii* are to be seen in superior gardens, and single shrubs of it 10 feet high with branches covering a circle of 8 feet diameter. Myrtles are also tall shrubs, and are now in flower.

Other plants which in colder districts are dwarf shrubs, or require the shelter of a wall, are here tall standards. I have just seen a Fig tree, a 20-foot-high standard, with 6 feet branches all round, and a stem 2 feet in circumference. It is loaded with fruit nearly full grown, and which will ripen if this month prove sunny, and if it prove unpropitious the fruit will be fit for preserving. The Holly is more than usually employed for hedging round fields as well as gardens, but it is only on its tree-growth that I wish to note. Holly trees are frequent and noble both in size and vigour. One close to the town is 50 feet high, its single stem more than 3 feet in girth, and its branches shade a circle of 20 feet diameter. Portugal Laurels, and, indeed, all hardy evergreens, are of superior stature and vigour.

I dwell in my previous notes upon that unique plant "The Flower of the Axe." Among other plants rare in the neighbourhood is the insect-devouring *Drosera*, rendered more notorious recently by Mr. Darwin, and the Bog Pimpernel. The Primrose is here common, but the Cowslip is scarcely known, and is popularly called "the Crewel." This and other local names of plants induced me to hope that among them might be the mysterious "Culverkeys," but no plant is known here by that name.

The Apple orchards are most numerous, and the crop this year very large. From here down to the valley of the Axe is the locality where the best cider is made. The crushing has

commenced, and I have seen cartloads of Apples being taken to the mill.

As I write cartloads of seaweed are passing the window, and they continue passing all the day, and every day except Sunday. The supply is inexhaustible, for every tide throws it up into an accessible cove behind the solid stone Cobb, or pier as it would be called elsewhere. The seaweed is chiefly spread over the grass land at this time of the year, but it is used as a foundation for the compost heaps. In the garden it is especially liked for Cabbages and Potatoes. One gardener tells me that it is spread thickly beneath Gooseberry bushes to prevent the caterpillar.

As might be expected from Sir Walter Raleigh's connection with, and the trade with Spain being largely carried on along this coast, it was one of the earliest to cultivate the Potato extensively. Ohard was, and still is, one of the largest markets for it. The commonalty at first had a great prejudice against its use for food, and they thought that the higher classes had some sinister motive in promoting its growth—no fact could show this more forcibly than the election cry at Lewes, "No Popery! No Potatoes!"

The word "Popery" reminds me that I have just been to the church here—though nothing can possibly be further from decoration than that—but it enables me to jot down that in the nave there is an epitaph on one of the Roses, contemporary with him who was Charles II.'s gardener. It is in memory of Elisabeth Rose, and it includes this anagram, "Ohe! blest arise." Totally differing in every respect is the church, and all its surroundings of Monkton Weald, a good old Saxon name, and going thither I passed an inn with a sign, probably the only one in all England. It is the "Pen Inn," so called, not in reference to the writing implement, but because it is on the top of the hill, Pen being the Saxon for a summit. The parsonage, the churchyard, and the church are all models worthy of general imitation. The incumbent, the Rev. J. B. Camm, is known to the readers of this Journal as a skilled rosarian. His Rose beds on three descending terraces are occupied by about two hundred standard, and a more than equal number of dwarf Rose trees. Far away on the other side the churchyard is the Rose nursery. Hundreds of this year's budded standard stocks looked like a miniature Hop ground. Much did I regret that my visit was not in the season of Roses. The parsonage is on a hill side, and the terraces follow at different levels down the hill in its front. The little side gardens, filled with Geranium beds, and surrounded by lofty Hollies, the beautiful specimens of Conifers, the Magnolia, Cotoneaster, Fuchsia, and Tea Roses, covering the house front, are all impressed on my memory, but should be shown by the pencil.

The churchyard has no common-shaped gravestones, but all have neat memorials, alternating artistically with small flower beds. Roses, Gladioluses, Phloxes, and Heliotropes were its blooming tenants when I was there; but there are successions for other seasons, and a purple Clematis and a Passion-Flower are on the church wall. These all tell of happiness to those gone on before, whilst the Cypresses and Weeping Willow of the boundary are fitting for those they have left behind.

There and everywhere the harvest thanksgivings have just concluded—gladdening all, for all feel the gratitude that they are instituted to express. The interior of all the churches have been in some mode decorated, and I will slightly detail the decorations of Beaminster church as an illustration: The reredos had an elaborate course of Barley, Dahlias, scarlet Geraniums, and foliage across the top, and in the centre underneath there was a cross of white Roses, bordered with a design in corn and flowers. Two miniature sheaves of Wheat tied with scarlet Geraniums stood upon the communion table, and there were two more on the communion-table steps. The organ screen had an artistic adornment composed of Wheat-ears, flowers, and fruit, interspersed with Ferns and variegated foliage, and the reading-desks and lectern were similarly embellished. Each panel of the pulpit was marked out with a blade of Indian Grass, and filled-in with vases of Moss, five in number, containing handsome bouquets of flowers, and at the top and bottom were wreaths of Wheat-ears, Apples, flowers, and foliage, from which Grapes were pendant. The font was covered with white Roses, Oats, and Barley, and at the base were placed small sheaves of Wheat and pot flowers. All the gas standards were adorned with Indian Grass.—G.

**STRAWBERRIES.**—On Thursday the 30th of September, and on Monday the 4th of October, there was gathered from my



garden a good dish of Strawberries, the colour perfect and the fruit of excellent flavour. The Strawberries were from plants of the Vicomtesse Héricart de Thury.—E. G. H., *South Norwood*.

#### A FEW CHOICE BRITISH PLANTS.—No. 2.

Resuming my remarks on this subject, I select the following as worthy the attention of collectors and cultivators of hardy plants:—

*Saxifraga oppositifolia*.—This pretty low-growing plant I confess never to have met with in a wild state, although I have sought for it where it was said to exist. Its merits, however, as a rock, or what is called an alpine plant, are too well known to require further notice here. It is a gem in its way when it can be induced to thrive, which it will not always do; and there are many, who preserve their Geraniums and other pets by the thousand, fail to save this hardy denizen of our highest mountain tops.

*Lycopodium Selago* (Fir Club Moss).—This conspicuous plant I remember gathering when ascending one of the Cumberland hills in winter. It was standing up-erect on some bare patches of grass with all the sturdiness of a lilliputian tree, and protected by its peculiar medical qualities from depredation from sheep and other mountain animals, whose sagacity in understanding what is bad for them far exceeds that of our lowland-bred cattle or sheep. I believe Dr. Hooker ascribes violent poisonous powers to it, as well as some of a useful kind in dyeing or fixing colours. It is needless here to say that the sharp eyes of the botanist are required to discover its flower; but its Spruce-Fir-tree-like growth of about a foot or more high gives it a conspicuous appearance, and as a plant it is well deserving of notice. I do not know how it comports itself under cultivation. Most likely, like many other denizens of great elevations, it may refuse to thrive.

*Cyclamen hederifolium*.—I have frequently been assured by those who have met with this plant in a wild state that it seemed plentiful enough where it was found, but I have never had the good fortune to discover it. It has, however, been found in Kent, and notably in larger quantities in Cornwall. I am told it is but seldom met with there now, the denuding of woodland that was once its favourite haunts having tended to render this plant more scarce than it ought to be. Neither is it so generally met with in cultivation as its merits deserve; and it would be well if those who are fortunate enough to find it in a wild condition would note such particularities about its site, character of the soil, and other matters as would be of service to those who try to grow it. In an ordinary way it grows and flowers well enough, but either the seeds lack vitality or they require some other mode of treatment than that usually given them.

*Orchids*.—I fear I must leave to others the task of dealing with these, as I have had comparatively little acquaintance with them, and I believe the attempts to cultivate these have not on all occasions been successful. I need hardly say they are all most beautiful, the early purple Orchis putting to shame the best coloured Hyacinth that can be produced at the time; while the Bee, the Fly, and Spider Orchis have all their admirers for their structural beauty, and the others are not less so, while the one called Ladies' Tresses is a great addition to a Nosegay. I fear, however, I can give no practical hints as to their cultivation beyond the meagre one that chalk would seem to be wanted for many, but perhaps not for all.

*Armeria vulgaris* (Common Thrift).—This is plentiful in certain places by the seashore, especially on a rocky one. Used as edgings it is a highly ornamental plant, and either in flower or not it has a neat compact appearance. But accommodating as Thrift edgings are, they are not so much so in shady dark situations as London Pride (*Saxifraga umbrosa*), which is about the best live edging I am acquainted with.

*Water Lily*.—I am not sure whether anyone would contradict me if I were to affirm that this is the prettiest flower that grows. The Rose may possibly take offence at the assertion, because that generally acknowledged queen of flowers appears before us in so many garbs, whereas this queen of another realm still holds by and retains her original loveliness, which it would be difficult for the artist to improve.

*Heath*.—Like the last, poets, historians, and writers of romance have made this plant theirs through many generations, and the beauty of the ordinary one is perhaps not excelled by those more rare. It is a plant, however, that I would not advise removing to the formal parterre, neither to dressed ground anywhere; but it may with advantage be introduced

into rough shrubbery or other suitable sites. Possibly, however, the early-flowering Cornish species might have a place in the fashionable garden; but as the whole family prefer not to be shifted too often, it would be as well to give it a permanent position if possible.

*Primroses*.—I here only allude to the wild kinds, which at some future time may possibly be more numerous and varied than at present. A good deal has been done in the way of hybridisation, some of them with garden kinds, and we all know their accommodating character. The outcasts from gardens have already spread many pink and other dark-coloured flowers amongst them. The more general distribution of the Oxlip and its liability to merge into the Cowslip and Polyanthus are matters known to all, and may possibly end in great diversity of this plant.

*Lily of the Valley and Solomon's Seal*.—Both these are doubtless British plants, but more generally met with in cultivation. The first-named species in a wild state is seldom met with in such good form as it is in cultivation, leading to the inference that the latter is an improved variety. Comment is unnecessary on either.

*Oxycoccus*.—This is a most useful family of spring as well as autumn flowers. They are all, however, more regarded as of foreign extraction than of British origin. In planting them on wild places we have so often had them destroyed by mice that but very little care really has been made of them. The autumn Crocus usually escapes the mice.

*Foxglove*.—Nowhere is this plant so pretty as when found wild, and no plant can possibly look better than it does in the position it is often met with.

*Toad Flax*.—Both the hanging and upright-growing species of Linaria are pretty and deserve attention; while in connection with them the Snapdragon is often met with apparently naturalised, and flourishing on some wall or rockwork natural or artificial.

*Lythrum salicaria*.—This stately plant, growing as it does by the sides of ditches, is one of the prettiest we know of late in the summer, rising to the height of 4 feet or more with its closely-set spike of rose-coloured flowers. It is a striking object, and well deserving attention.

*Myosotis*.—As the garden species or variety—for it is no easy matter to distinguish the one from the other—is more easily managed than the wild, it is not necessary to encourage the latter, unless it be *M. palustris* by the side of some ditch or pond, where it yields to none for beauty; but its flowers are less plentiful than the garden variety called *M. dissitiflora*.

*Saintfoia* is a very pretty plant, as likewise is the field crop, *Trifolium incarnatum*. The latter, however, is not a British plant. Dry chalky soils suit both.

*Pyrola media* is a pretty-habited plant usually met with in Fir plantations on rather a stiff soil. Both flower and foliage are good.

*Rhinanthus Crista-galli* (Yellow Rattle) is not by any means an unsightly plant, while the flowers are really showy. Pasture or rather meadow land, on rather a stiff soil, seems to be its home, and in England it is thought to indicate the time for cutting the hay when its seeds rattle in their pod. In Sweden the hay is mown when it is in flower.

*Sedum acre*, and some other species, are more or less in demand now that dwarf plants are sometimes wanted. There are several varieties of the first-named all produced by cultivation, but the original is likewise pretty and interesting.

*Spiraea ulmaria*.—This would have been considered a handsome flowering plant if it had been imported from some tropical clime and was difficult of cultivation, but as it is no one can deny it the claim of beauty. There is a golden variegated form of it very pretty, but it is of slow growth.

*Thyme* (Wild) looks very pretty when it covers the ground and throws up its lavender-coloured flowers in profusion. A dwarf form, not British, *T. micans*, is very handsome and pretty as a dwarf plant.

*Trollius europæus* (Globe Windflower).—I am not certain of having found this plant wild, but I know it has been found so in moist rather exposed places.

*Callitha palustris* (Marsh Marigold).—Foliage and flowers are alike pretty. As its name implies, the margin of ponds or rivers is its home.

*Valerian*.—Nothing can possibly exceed the beauty of some of the chalk cuttings and embankments by the sides of railways in some districts where this plant abounds. The most carefully cultivated flower bed does not exceed it, and it is found in such abundance, too, attracting the attention of the



most careless passers-by. It will grow in most places, but reproduces itself in greatest abundance by the sides of railway embankments where chalk abounds.—J. ROBSON.

### WHEN TO PLANT FRUIT TREES.

It is generally conceded that autumn is the best period for the removal of trees and shrubs. I will not dispute that it is so, but at the same time I am of opinion that trees may be moved any month in the year if care is exercised and correct treatment is subsequently afforded them.

Early this spring, in consequence of alterations, it was found necessary to remove some Peach and Nectarine trees which had been planted seven years. These trees I removed on the 28th and 29th of April, and I have since gathered from them an excellent crop of fruit. They were removed with great care and planted against some spare places on a north wall. On this aspect they have not only ripened their fruit, but it was ready at the usual time. Malta Peach was gathered in the middle of August, and Bellegarde the last week in September. I can only account for this early ripening on a north aspect to the fruit having been set early and the regular attention the trees have received in syringing and watering them. These trees will be removed to a south wall, but to have put them there in the first instance would have ended probably in their destruction.

Shortly before moving the Peach trees I removed some pyramidal Pears of large size and full of fruit. These trees were taken up and replanted with great care. Fresh soil was placed round their roots, and the foliage was syringed several times a day for some time. These trees have perfected finer fruit than ever they have borne before. I attribute success in these instances to the care taken in not mutilating the roots or suffering them to become dry during the operation of removal, to the fresh soil given them, and to the frequent syringings to keep the foliage fresh.

Thus it is that I believe that trees may be removed at any period of the year if means are provided to attend to their wants afterwards. These wants are reduced to a minimum in the autumn, and hence it is that planting should be expedited at the present time, and before the earth has become wet by the rains of winter, sodden, and cold. If planting cannot be done early in the autumn I think it well to wait until the ground has become dry in spring. More depends on the state of the soil as to its being in a free easy-working state, and the attention that can be given to the trees, than to any mere date at which it is best to transplant fruit trees and shrubs.—JOHN TAYLOR, *Harbridge Grange*.

### CARNATIONS: LIST OF FOUR OF THE BEST IN EACH CLASS.

*Scarlet Bizarres*.—Admiral Curson (Easom), Dreadnought (Daniels), so much alike that I grow them as one sort; Sir Joseph Paxton (Ely); Lord Napier (Taylor), Mercury (Hexall).

*Crimson Bizarres*.—Eccentric Jack (Wood), Captain Stott (Jackson), Lord Bagin (Bowers), Warrior (Slater).

*Purple Flakes*.—Squire Maynell (Brabbins), Juno (Baldon), Premier (Millwood), Mayor of Nottingham (Taylor).

*Scarlet Flakes*.—Clipper (Fletcher), best; Sportsman (Hedderley), John Bayley (Dodwell), Mr. Battersby (Gibbons).

*Rose Flakes*.—John Keet (Whitehead), James Merryweather (Wood), Uncle Tom (Brammas), Flora's Garland (Brooks).

*Red Picotees*.—Princess of Wales, n (Fellows); Brunette, n (Kirtland); Mrs. Dodwell, n (Turner); John Smith, n (Bowers); Wm. Summers, n (Simonite); Mrs. Bowers, n (Bowers); Mrs. Keynes, n (Fellows); Thos. Jivens, n (Flowdy).

*Purple Picotees*.—Alliance, n (Fellows); Norfolk Beauty, n (Fellows); Mrs. Summers, n (Simonite); Mrs. May, n (Turner); Mary, n (Simonite); Ann Lord, n (Lord); Mrs. Hannaford, n (Simonite); Amy Robsart, n (Dodwell).

*Rose Picotees*.—Mrs. Lord, n, rose (Lord); Edith Dombrain, n (Turner); Rev. H. Matthews, n (Kirtland); Flower of the Day, n (Norman); Empress Eugénie, n (Kirtland); Beauty of Plumstead, n (Norman); Cynthia, n (Lord); Bertha, n (Morris).

Many of the foregoing were shown well at the National Show at Manchester. With regard to a suggestion of the Carnation Show being held on the 13th and 14th of September, it must be a mistake, as all bloom is over with us before that time. The National Show was held on the 13th and 14th of August. Next year it will be held on the 11th of August. The general

meeting to arrange the schedules for all the national shows will be on the third Wednesday in January next, at 1 p.m., at the Old Bull's Head, Market Place, Manchester, when I as one of the Committee, and I have no doubt all the others, would join in welcoming any of the southern growers who might be able to attend. As to fixing a time suitable for north and south that is impossible, but there is nothing to hinder us from having a number of shows every year under the one head (National). I have had some correspondence with growers in other districts who are in favour of holding a show (national) to come off about the 20th of August, which would be a means of giving the late districts a chance. The more extended a national society is the better it is, as it will always prevent the market from being flooded with indifferent varieties.

We always show the blooms on cards, and have done so for the last thirty years. The cards generally used are 3½ inches in diameter. Most of the growers procure them from Geo. Meek, Crane Court, Fleet Street, London. If a flower is small we use a smaller collar in proportion. We are, however, having sorts now for which the 3½-inch collar is none too large.

A few words with regard to dressing. This has always been done ever since I knew anything of Carnations, &c., and if there are any who can grow them well but not dress, I say the sooner they learn the better. All the old growers that I know make no secret of it, but are willing to show anyone. After the National Show, and at the general meeting which took place, a flower was taken and dressed before all present by one of the best dressers in England (E. S. Dodwell, Esq.); at least I have always taken him to be such.—Geo. RUDD, *Undercliffe, Bradford*.

### A VOICE FROM A TOWN GARDEN.

AMONGST the many enemies I have to contend with the most formidable are smoke, sparrows, caterpillars, and an exposed situation. My last sowing of Peas has failed entirely through these feathered depredators; and whole rows of fine Cabbages are fairly riddled by a perfect army of caterpillars. Then the smoke is everywhere, and how to fill up profitably a few vacant spaces in the garden and on the walls is an enigma too hard for me to solve. Will someone kindly come to my assistance?

I have somewhere read that where Black Currants flourish Raspberries will do so likewise; but I have not found this to be the case. I have, perhaps, half a dozen Raspberry canes, from which I have sometimes gathered about as many Raspberries. It has been suggested that they are too far apart, but would that make any difference? If so, I will at once proceed to fill up the spaces, and should be glad to know what are the best sorts. Red Currants bear here, but not so abundantly as the Black, and are small and not very juicy. Gooseberries I can do nothing with. I have one Walnut tree which has sometimes borne a few hundreds, but from the Filbert bushes I have never had a single nut. Apples do no good, though one or two old trees bear a few most years, Northern Greening and Keswick Codlin for instance; but these are gradually dying down, and the few young trees I have planted are infested with American blight every season.

With Pears I am more fortunate. A standard Jargonelle has borne plentifully this year, having before always failed, though a free bloomer, from late frosts, being in an exposed situation. Of Pears against a west wall I have a tolerable selection. One, Knight's Monarch, bore well last year for the first time, though twelve years old; but this spring it was attacked with a grub—which indeed attacks all the fruit trees more or less—every leaf and bud was eaten away, and the tree is now dead. I should like to replace it, and what sort would be best to have? The trunk of this tree, and the trunks of most of the others, looks rough and cracked, and our gardener says it is a bad sign, and shows that all are in a bad way. The sorts I already have are Beurré Diel, which has never borne; Beurré de Capiaumont; Beurré de Bance, never borne; Louise Bonne of Jersey, Napoleon, Williams's Bon Chrétien, and Glou Moreau, never borne. One of these, a small tree that makes but little growth, bears well most years. The fruit is ripe now, but having lost the label I cannot tell which it is. It has a fine ruddy colour on the side next the sun, pale yellow when ripe on the other; fruit rather long, tapering towards the stem, and not very large. Does this description point to Louise Bonne of Jersey, which I rather think it is?

From Pears to Roses is a wide step, but I have one—a Tea-scented, I think Gloire de Dijon—which after making little

visible growth during the spring suddenly shot-up one long stem, which bore one very fine blossom quite at the end, and a small imperfect one on a lower branch. The new branch is at least 4 feet long, and looks straggling and awkward. Should I cut it down? And should Roses generally in such a locality be cut short at this time of year? I have tried in vain to find a good crimson climber. Before I close let me recommend, as one of the very best yellow bedding annuals I know, *Tagetes signata pumila*. It is at this time a perfect mass of colour, and grows compact and very bushy, making a most showy bed.—A LADY GARDENER.

[This is the letter of a true gardener—one who clearly loves her garden and will not willingly succumb to adverse circumstances. It is such earnest workers whom we are especially desirous of aiding. In a smoke-polluted atmosphere the only antidote is the water engine; by its aid and a judicious selection of plants a smoky garden may be made fairly enjoyable. Sparrows may be dealt with in two ways; one is to destroy them, and the other is to feed them. If they are fed regularly in a place distant from the garden a great deal may be done in preserving the crops. Peas should be protected. In the absence of regular "protectors" (which are cheap and efficient) lengths of closely-woven hexagon wire netting bent over the rows will answer the purpose admirably, and will completely baffle the birds. Caterpillars (in this instance the sparrows have not eaten them) can only be kept down by hand-picking. This may be done, and should be in young plantations of Cabbages. A mixture of soot and lime to be dusted over the young plants occasionally is also recommended. Black Currants and Raspberries are alike in requiring a moist soil, and both will endure some shade, but the latter do not flourish so well in a town garden as the former. Closer planting will not induce fruitfulness (the canes are worn out), but a fresh plantation from a vigorous stock might produce fruit for a few years. Carter's Prolific is a good and robust-growing sort. Raspberry canes are short-lived in town gardens, and need frequent renewing. Filberts are not adapted for town gardens, and are never profitable. The American blight on the Apple trees may be destroyed by dressing the parts affected with paraffin. This must be done in the winter. The unnamed Pear is *Louise Bonne* of Jersey. Fill the vacancy with a duplicate tree of the sort which has been found to flourish the best. Are the trees too full of wood? The one "which makes but little growth bears." If the branches are thick the growth is gross by each shoot struggling to obtain air. The branches must be thin, so that the sun can shine quite through each tree, and if after that they continue to grow too luxuriantly cut some of the main roots. Prune the Rose to one-third its length of young wood, and all the Roses should be encouraged to grow strongly by liberal supplies of liquid manure to the roots, and frequently syringing the foliage, and they should be pruned short-in in the winter. *Amadis* is a good crimson climber. Is not the surface soil of the garden light and poor, and the subsoil strong and wet? Rich surface dressings and liquid manure at any season should be given to the Raspberry canes and Roses. Mulch also to induce surface-rooting of the fruit trees, for surface roots produce fruitful wood, but subsoil roots create an excess of robust shoots and foliage, which is not conducive to fruitfulness.]

#### PEACHES INDOORS AND OUT.

ENCLOSED is a Peach grown on a standard out of doors; the tree has had no protection, and was removed out of my orchard house, after the wood was ripened, in October, 1874, where it had ripened a crop of fruit very much larger but not so high-flavoured as they are this year. The tree has ripened all its fruits this season; all exactly the size of the enclosed specimen. It is planted in a bed having a westerly aspect and gravelly soil two miles south of Birmingham, and nearly 500 feet above the sea level.

I have found that anything which checks luxuriance is conducive to fruitfulness: the replanting would do so. Some of my labels were tightly tied with fine whipcord, and cut deeply into the branches; these branches alone bore fruit on several of the trees when young. My practice is not to water Peaches, Nectarines, &c., from October (when they have several hundred gallons) until the fruit is set; the young fruit then adheres very firmly, and shows no tendency to drop off.

There are twenty-five trees in my orchard house, each from 8 to 14 feet in diameter, and all with only one exception bore a good crop. This season the glass is butted instead of being

lapped, which admits the dew as well as more air than the old plan, hence I think my success.—THOS. A. BICKLEY.

[The fruit sent was perfectly ripe, but we could not test its flavour, as it was smashed.—EDS.]

#### THE POMEGRANATE.

THE Pomegranate (*Punica granatum*), although it does not produce its fruit in England, is exceedingly attractive by its beautiful scarlet flowers, which it produces freely on warm south walls in the southern counties. It is generally, however, sparse in flowering, a consequence in most instances of over-luxuriant growth by rich soil and extreme moisture at the root. Where the site is warm, and the soil dry and rather poor, this plant will generally flower freely under careful cul-

Fig. 72.—*Punica granatum*.

ture and a correct system of pruning. The branches should be thinly disposed, so that the foliage of one does not overlap that of the next, and the lateral growth should be weak and stubby. If the lateral growth is robust no amount of pruning will result in blossom, for each cutting only causes stronger growth and more unlikely blooming-wood being produced. In most cases where bloom does not appear the remedy is to be found in root-pruning. This in connection with a free thinning of the branches is almost invariably the means of inducing the formation of blossom buds and a profusion of the coveted scarlet flowers.

In pruning much the same treatment as that given to the Apricot will be correct—that is, by pinching the young growth in summer, and admitting the sun to every part to mature the wood. But still this pinching must not be excessive, for if the shoots are so strong as to require continual pinching it is plain that root action is too vigorous, and it is at the root that the check must be given. If the breast wood of the Pomegranate grows more than 6 inches in length it is seldom that

blossom is produced, while stubby shoots of half that length almost invariably flower if the temperature is sufficiently high to mature the wood. The Pomegranate is, apart from its flowers, ornamental by its bright green Myrtle-like foliage.

It is adapted for pot culture, and is extensively used as a terrace plant in continental gardens. It requires the full force of the summer's sun, and to be kept rather dry at the roots in autumn and through the winter, when it will generally flower freely. The fruit of this plant is imported from the shores of the Mediterranean, and varies in size and quality. The pulp is pleasantly acid, and is used for the same purposes as the Orange. The bark and root are used for medicinal purposes, and in countries where the tree abounds it is used for tanning leather.

A poor soil, warm site, and thin training of the shoots are the main points to be attended to in cultivating the Pomegranate in England.

#### GRAPES AT THE EDINBURGH SHOW.

MR. DICKSON in his letter distinctly says that he saw and examined the bunch of Grapes from Eskbank, and that it was two bunches, also that six of the best Grape-growers saw and believed the same. If this is correct (and as yet I must believe it is, for Mr. Curror in his letter did not deny it), I think it is the duty of the Secretary and Committee of the Show to make a most searching inquiry into the matter.

It is natural enough to suppose that if the Eskbank Grapes were only one bunch Mr. Curror would have come forward boldly and publicly denied the accusation, but instead of doing that he merely says that the "character and position of the gentlemen who acted as judges are sufficient guarantee that nothing was wrong." That is no denial. No one doubts the honesty and character of the gentlemen who acted as Judges, and no doubt if they had discovered that it was two bunches they would at once have disqualified it; but in the hurry and generally short time that judges have to do their work (and on this occasion in a singularly dark room), they might easily not observe whether it was one or two bunches, for judges are not there to act as detectives, but to award honour to whom honour is due.

Another thing worthy of remark is contained in the letter from "AN ENGLISH GRAPE-GROWER"—viz., that "the Arkleton bunch was much rubbed, and appeared to have received injury in transit;" now, I know for a fact that the bunch was, when it was laid on the table at Edinburgh on Tuesday night, in splendid and perfect condition. As "D. E." appears to have been present at the weighing, perhaps he may be able to give some information whether he noticed the bunch rubbed before it was weighed.—JUSTICE.

WITH regard to this controversial matter, it appears to me to be of very easy solution. Surely the fruit stems of these celebrated bunches are preserved and can be submitted for examination. I suggest that they be forwarded to the Fruit Committee of the Royal Horticultural Society of London. That body is unquestionably unprejudiced and undoubtedly competent to determine, on that data, whether Mr. Curror or Mr. Dickson exhibited more than one bunch for the prize at Edinburgh.—A NORTHERN GARDENER.

ALL Grape-growers have an interest in knowing what constitutes a bunch of Grapes, and perhaps you will allow a pretty old Grape-grower, exhibitor, and frequent judge, to state that he has always been accustomed to regard a cluster with two distinct footstalks as two bunches, and never heard this definition questioned. It is a well-known fact that two bunches are often produced from the same eye. Sometimes they come with a fasciated stem, and sometimes the footstalks are quite distinct. Both examples are common in the Black Alicante; and though with us such bunches are always the largest—in fact generally twice as large as the others, we never yet thought of exhibiting such as a single bunch.

Now, putting aside personalities, Mr. Dickson's charges (page 323) on this head are distinct enough, and if false they are easily refuted. The question can be put in a nutshell: Had the Eskbank bunch of Grapes two footstalks, and were the Judges aware of it? If they were, then they have set the usual rule aside, rather unwarrantably it would appear; and if they failed to ascertain the fact, after what has been said on the subject of big bunches before, as regards their *bond fide* character, they made a grave omission.

If the facts are comestable let us have them. It is an awkward way of answering a straightforward question by referring to the immaculate character of the Judges. One is not disposed to doubt them, but let us have the facts; and while on this subject it is not too much, I think, to ask Mr. Dickson for the names of the gentlemen who are able to corroborate his statement. It would strengthen his case, and do them no harm whatever.—GRAPE-GROWER.

#### STANHOPEA BASKET.

ALL Orchid-growers have experienced the inconvenience of the unendurable nature of the wooden and wicker baskets which are ordinarily used for the cultivation of their epiphytial plants. They need no longer experience that inconvenience, for Mr. Matthews, the Royal Potteries, Weston-super-Mare, the well-known manufacturer of flower-pots, has produced a basket at once neat, light, and imperishable, and which must supersede the usual wooden baskets for the cultivation of Stanhopeas and kindred plants. This basket needs only to be seen for its merits to be appreciated. It should find its way into all Orchid houses. The accompanying figure gives a true representation of this useful aid to the cultivation of Orchids.—J.

#### POND'S SEEDLING PLUM.

I EXHIBITED at Daventry Horticultural Show, September 7th, six Plums that weighed 1 lb. 7 ozs. The tree grows on a south wall. In 1873 I gathered my

Fig. 78.

Earthenware Stanhope Basket.

first ripe Plums, August 2nd, from Early Favourite, and my latest from Pond's Seedling. In 1874 I had fruit from these varieties from July 20th to October 10th, and this year from July 22nd to the present time. Pond's Seedling is an excellent late variety. The hives have been much more troublesome this year than the wasps in destroying fruit. Can any of your readers give me the name of the dark Plum that took the first prize at the Stamford Show?—O. E. BRACKENRIDGE, Manor House, Kilsby.

#### OLLA PODRIDA—A CONTINENTAL TOUR.—No. 5.

I LEFT off in my last at Baveno: from there we started to cross into Switzerland by the St. Gotthard Pass. And here let me give a word of warning to any who wish to take this Pass by diligence, which starts now from Biasco, not to trust to the truthfulness of Italian hotel-keepers. We wanted to secure three places in the coupe of the diligence, and wrote to the landlord of the principal hotel at Biasco, asking him to secure them for us. We received no answer; so, after three days, we telegraphed, and had as a reply that all the places in the coupe were taken, but that there would be, most probably, a supplementary diligence, in which case he would try and secure the coupe seats; but—and here was the gist of the whole matter—he could be certain to secure a return voiture at but little greater cost than the diligence. We started late in the evening, took the steamer to Locarno, and then went by train to Biasco, where the landlord met us, and again assured us that there were no coupe places to be had in the diligence, and wished us to make arrangements for a voiture with a person who entered the train at Bellinzona, and had immediately tried to make us hire his voiture, for which he wanted at first 200 francs. We refused point blank to have any dealings at all; and I rose up early in the morning, went down to the office of the diligence, and found that the whole story of the coupe places being taken was a fabrication, as no places had been booked at all. I consequently booked three places, and went back to the inn, when the landlord met me, and was very sorry no places could be had, and he could supply a return

voiture at a less price than that asked the night before. I answered, he need not distress himself, as I had the tickets for the diligence in my pocket.

Biasco is situated in a narrow valley at the head of the Lake Maggiore, the river Ticino running into the lake past it. At Biasco the valley branches, one road going to the St. Gothard Pass, the other leads to the Lukmanar Pass. The valley from Biasco to the Lago Maggiore, called Riviera, is very warm and sheltered, and abounds in vineyards. We were very unlucky in our day for crossing, the heat was intense; there had been no rain for a long time, and the roads were worked up into white dust from 3 to 4 inches thick, mixed with loose stones. The roads are mended with white granite containing a good deal of gneiss, and owing to the railway being in process of formation and their being at work at the tunnel between Airolo and Goschenen, there had been a more-than-usual amount of traffic along the roads, and they were much cut up; to add to our misery the wind was at our backs, and was sufficiently strong to blow the dust after us, so as from time to time completely to envelope us in clouds of dust, which prevented us even from seeing the horses in our own diligence in front of us. Three other carriages followed in our track, and at times we had the accumulated dust of all three added to our own; add to this that a midday June sun was pouring down upon us in a narrow valley, and your readers may judge that our experiences were by no means pleasant. I will not, however, dwell on the discomforts, though till then I had no idea how unpleasant dust could be. As in crossing by the great Mont Cenis tunnel, so here, too, as we gradually rose the valley of the Ticino the vegetation altered, and I was not sorry to be rid of the white Mulberries to get to the Chestnuts and Walnuts; then after Airolo both the Vines and Chestnuts, and also the Walnuts, ceased, and we reached the Firs and the Pines.

Between Bodio and Faudo the mountaineers were busy in securing their crops of hay, and it was rather strange to my eyes to see all the hay carried to the stacks on men's backs. Large cocks of hay were bound up with ropes and hoisted on to men's shoulders, where they were carried on a peculiar kind of shoulder-boards, with projecting arms below the shoulder-blades, the rope being grasped in front, and the bundle of hay held taut against the shoulders. This contrivance seemed to equalise the weight, and great bundles of hay were carried in this way where it would have been almost impossible for a cart to have worked.

After Airolo, where one end of the long St. Gothard tunnel begins, the scenery began rapidly to change. The St. Gothard tunnel will be about a mile longer than that through Mont Cenis; they are working it by means of water power from each end, but they do not expect to have it finished till the year 1881. Soon after crossing the opening of the tunnel at Airolo the road begins to make a rapid ascent up the Val Tremolo by means of zigzags. Here we passed through meadows filled with alpine plants, which were at that time in full flower, and nowhere did I see them in greater profusion. But here I may venture to remark that—though my own experience, perhaps, is limited—I cannot see that there are many more wild flowers to be found in these alpine regions than in our own lanes and hedgerows. Some, no doubt, as the *Primula farinosa*, *Primula auricula*, *Gentian*, &c., are very pretty, but on the whole I was disappointed, and never found them anywhere in the same abundance as I had been led to expect. After the alpine meadows our road laid through some Pine woods, where, in walking from one zigzag to another, we came upon a very beautiful fall of the river Tessin or Ticino. Soon after this the road continues to rise very rapidly by means of zigzags, in one place there being no less than twenty-eight in succession, and we were very soon above the limit of the Pine woods to vegetation of the most barren description, chiefly Moss and Lichen, though here and there plants are to be found of the dwarf *Dianthus*, &c. The top of the Col de St. Gothard is 6936 feet above the sea (for which information I am indebted to Murray). We did not reach there till after eight o'clock, and found the inn and opposite hospice at the top full to overcrowding of Italian workmen, who are quarrying the loose boulders of granite for the sake of the masonry and approaches to the tunnel. They were all eating a sort of strabont soup of macaroni out of wooden bowls. I do not think I ever saw humanity packed much closer together feeding.

We only stopped at the top to change horses, and then went down to Horpenthal. The descent in the dark was by no means pleasant, the drivers and horses, which are accustomed to the

work, swinging the diligence round figure-of-8 curves, with a descent of about 1 in 7, at the rate of eight or nine miles an hour. The diligence stays for the night at Andermat, but we stopped short at Horpenthal with the intention, if it were fine, the next day of paying a visit to the Rhone glacier at the Furea, but fates decreed it otherwise. The next day looked threatening, and we wisely gave up the idea, and at one o'clock, or before, it began to pour and continued the rest of the day. In the morning I climbed with a friend a short way up the side of one of the hills to look for alpine plants, and found some good beds of *Primula farinosa*, which seem to like the damper situation.

I had no idea before how hardy the common Alder was; it was here growing above the line of the Firs, and where the little ravines were still covered with snow the boughs, which had been completely weighed down and covered with snow, were beginning to start into leaf, while those growing on the tops of the ravines were nearly in full foliage. Can any of your readers tell me if there is any tree that will grow at a higher elevation than the Alder?

The next day we abandoned the diligence (not being sorry after our experience to be rid of that means of locomotion), and took a carriage for Tels Platte on the Lake of Lucerne. The roads after the rain were a pleasant change from our previous day; and what most struck me in our day's travel was the great luxuriance of the Ferns. The first we saw, or rather which much attracted our attention, were some beautiful plants of the Parsley Fern growing in the walls which support the road in the zigzags immediately after passing the Devil's Bridge, where the road crosses over the foaming torrent of the Reuss. From that point all the way down to Arsteg we saw Ferns in abundance, chiefly *Pteris aquilina*, *Adiantum*, *Athyrium filix-femina*, *Lastrea*, &c.

I will now digress to remark that those persons who think it right to make artificial rockwork look like natural stratification are mistaken. What I have so often observed before in moorland dales and narrow ravines up the sides of mountain streams I noticed here too on a larger scale—that the Ferns were never growing in the natural stratification, but in the *débris* of the fallen rocks, among loose stones, under huge boulders, or wherever the soil washed off the overhanging cliffs was covered with broken rocks. Nowhere—and I kept a good look-out here and afterwards among the hills and rocks on the sides of the Lake of Lucerne—did I see Ferns growing out of the strata where it had been exposed by the fracture of the rock. Why I am induced to make these remarks is because some persons—and among them Mr. Ingram of Belvoir, whose opinion I do not like to gainsay—find fault with any rockwork put together for the sake of growing Ferns and alpine plants unless every stone is laid in its natural bed. Now, I have found as an invariable rule that where I have seen Ferns growing best has been under cliffs and in ravines, or by the side of mountain streams where no single stone is lying and in its natural bed—that is, in the strata in which it was deposited. About Bayeno and again about Bellagio the finest specimens of Ferns were growing in the walls by the side of the vineyards and roads. And after passing Goschenen on the St. Gothard route to Wasen, where the road passes through Pine forests, the Ferns are all growing most luxuriantly in the *débris* of the rocks which fall from the stupendous cliffs that tower many thousands of feet overhead. It is a mistake, I maintain, to try in rockwork to imitate cliffs and stratification. This I shall allude to again when I conclude these notes with a few remarks on Battersea Park, which I went to see on my return, in order to compare our English and foreign gardening; and my apology is due *en passant* to Mr. Rogers who kindly escorted me round Battersea Park, for being so long before I get to the end of what I am afraid your readers will think a somewhat prosy paper.

What I maintain is, the object of rockwork and rockeries is to grow Ferns and alpine plants in an ornamental and picturesque way, and in a way which is best suited to the habits of each kind of plant; and this can only be done, not by any attempt to imitate nature or by making concrete and stucco stratified rocks, but by using stones and soil, and taking advantage of sun and shade, north aspect and south, dry places and wet, &c., according to the kind of plants you wish to grow. If when you take up a stone to put it on to the rockwork are you to think which is its bed?—did it lie on this side or that? You simply make yourself a slave to an idea. Where Ferns and alpine plants grow to the greatest perfection Nature has performed wild freaks and will do so again, and in many a

place no one stone will be found in its original bed. This, however, is a digression, but a digression which I have been induced to make, because all that I saw in Italy and Switzerland so certainly confirmed what I have previously noticed in the woods and dale valleys in Yorkshire, where Ferns grow with great luxuriance and beauty, that nowhere do they succeed so well as in the loose stones and *débris* washed down the face of the cliffs or in the beds left by mountain torrents. I do not mean to say I never saw a Fern growing out of the exposed strata of rocks, but it is an exceeding rare thing to see them do well, and none hardly but the *Ruta muraria* or the *Oterach officinale*, or occasionally the *Blechnum boreale*; but as a rule Ferns rejoice in much more depth of soil, and shade, and moisture than stratified rocks will give them.

On the Switzerland side of the St. Gothard Pass we did not again meet with the same luxuriant vegetation as in the valleys on the Italian side. The valley of the Reuss as it nears the Lake of Lucerne is, however, very fertile; and after passing Amsteg the roads are much improved by the use of the mountain limestone for roads instead of the white granite. The Reuss is full of the detritus of granite and gneiss washed out of the mountains by glacier action, and the whole of the Lake of Lucerne, especially at the north end, is coloured by it. At Lucerne the waters of the lake leave it a deep pure green, and, till the Reuss joins the Rhine, the water of the river is very beautiful to look at. Here I will conclude for the present, and will finish in two more papers with a few remarks on Paris and Battersea Park.—C. P. P.

### OUR BORDER FLOWERS—WALLFLOWERS.

This is an extensive family of plants met with in many parts of the world and under various circumstances. We, too, in our "own loved land" have a grand representative of this cherished family in *Cheiranthus fruticulosus*, so prized among our rural population. Few of them would like to be left without their favourite, for a garden is not complete without Wallflowers. They appear to cling to the old home with a lifelike tenacity, and well have they been termed the emblem of fidelity. They attach themselves to the desolate, and conceal the crumbling records of feudal times; they occupy the chinks of the mouldering edifice, and weave garlands of beauty on the ancient monument.

"For this obedient breeze bear  
Her light seeds round yon turret's mould,  
And undispersed by tempests there  
They rise in vegetable gold."

Wallflowers are at home everywhere. They are of shrubby habit, sometimes lasting for years. When once established they take care of themselves. Others there are that require more attention; these are the beautiful double varieties that are not met with so often as they ought to be, nor nearly so often as they might be. In old-fashioned times and in old-fashioned places you might meet with three or four varieties of double Wallflowers, but now you look for them in vain. I would ask, What flower is more esteemed, and especially for fragrance? The old double Wallflowers are easily increased by cuttings made of half-ripe shoots which may be struck in heat, or by shoots taken off with a heel in autumn and inserted in light sandy soil under a handglass, also by layering during the summer.

For indoor decoration no plants are more desirable. With care they may be grown to a large size in pots; by stopping and potting-on they may be made to approach a small bush in form; and when in bloom in late winter and early spring what can be more charming than these fragrant Wallflowers? They succeed well at the foot of a wall or by the dwelling house side in dry sheltered situations. One of the best of the double varieties is *Cheiranthus purpureus* and its compeer the variegated variety, and when grown in masses the air becomes loaded with their perfume. As they have been, so must they remain, favourites with all lovers of beautiful-scented flowers.

The German Wallflowers are a splendid race of plants: they may not emit such a perfume as our own, neither do they prove so hardy in our changeable climate, yet they do us good service for spring garden and border decoration. Then we have *Cheiranthus alpinus*, a real gem, perfectly hardy, and readily increased by cuttings in autumn in a cold pit or under hand-lights, or by division in early spring. It is a capital rock plant. *C. Marshallii* is a telling plant in the spring garden, and is worthy of extensive cultivation; *C. ochroleucus* is much like *alpinus*, and is sometimes substituted for it. The plants should

be frequently renewed or they become unsightly, and old plants often drop off altogether after winter. All are beautiful, lasting a long time in bloom.

There are many other kinds equally attractive which ought to be more sought after, but those I have named are among the best of the race and should be in all collections.—*VERITAS*.

### BEEES AND FRUIT.

I REG to add my testimony to the destructive habits of our honey-producing friends. I thought I was the only sufferer by their fruit-eating propensities, and would bear the inconvenience in silence in the hope that they would of themselves leave off troubling me. I thought, too, that I might be accused of presumption had I made my trouble known. I will now state that they have not forgotten for the last four years to visit my British Queen Strawberries, and defy all my powers to prevent them in their attacks, and the worst of it is the bees are not our own, but come from a distance. The destruction they make is incredible. Apriots have also come in for their share of attack as well, and the only means to prevent their ravages I find is to gather the Apriots a little under-ripe and place them in a warm room where the bees cannot obtain ingress. My Aston Red or Warrington Gooseberries, netted or matted, they are determined to have and devour. I have not seen them attack other kinds of fruit.—*OBSEVER*.

I THINK that bees are of great and inestimable value in setting the fruit of Gooseberry, Plum, Apriot, Peach, Apple, Pear, and other fruit trees, and that it is but seldom they injure fruit. My experience extends over fifty years, and I have witnessed two cases only of bees injuring fruit. The first time was in September or October of 1843. The weather being warm, and the flowers being over, the bees did attack and destroy many luscious fruits of Coe's Golden Drop Plums that were hanging near to them. The other case happened in 1868, when the herbage was burned up by a long and severe drought. There were no honey flowers, and the weather was uncommonly hot. The bees then resorted to Raspberries, sucked the juice out of them, and rendered them comparatively worthless. In neither case were the bees prompted by hunger, having plenty of honey in their hives at the time mentioned. Our bees are surrounded by Raspberries, but they have never touched one since.—*A. PETTIGREW*.

### SALVIA GESNERÆFLORA.

EVERY October for I cannot remember how many years past I have had the pleasure of potting up from the open ground immense pyramids of this fine *Salvia*. My lot has fallen in a place where not only a full display of flowering plants are required, but where scarlet is expected to be the prevailing colour. Now, it is not an easy matter to set a conservatory ablaze with scarlet during the winter and early spring months, but the plants which above all others are capable of producing it are *Salvias*. Scarlet and white are the most effective colours for winter. Both by daylight or gaslight they are alike striking, and if the flowers can be had in elegant sprays they are doubly useful for many purposes of decoration and in giving relief to the formal masses of *Camellias*, *Azaleas*, &c. For affording floriferous sprays of these colours my staple plants have long been *Deutzias* and *Salvias*.

*Salvia fulgens* is now in full beauty, and will continue until December. *S. splendens* will continue until February, and by that time the handsome pillars of *S. gesneræflora* will be in their zenith of beauty, lasting until April. But while all of the trio are useful, the one last named is the greatest and the best.

Very commonly are these plants grown in pots throughout the summer, but by that mode of culture it is almost impossible to bring out their full beauty. By an occasional want of water or an insufficient amount of food the foliage loses its rich green tint, and the plants are deprived of half their attractions. By planting-out in deep rich ground in May and affording occasional supplies of liquid manure, every leaf is preserved of a full deep green, and the spikes are produced of twice the size over those from plants which have been grown in pots.

By striking the cuttings in March, growing carefully on until May, shifting in larger pots as required, and subsequently planting-out, I have had no difficulty in growing plants 7 feet in height and 3 feet through near the ground, and tapering—as they will do without any pinching—to a point. Such plants

from February to April have few equals for conservatory and corridor decoration, and their out sprays are ever in request. If this simple mode of culture was generally adopted this fine plant would be seen everywhere where large plants of bright

flowers can be grown, but unfortunately it is rarely met with, and then only in a half-starved state.

Many gardeners do not know the plant, and not a few confound it with *S. fulgens*. It is, however, altogether more

Fig. 74.—*SALVIA GESNERIFLORA*.

robust than the last-named species, having larger cordate-ovate leaves, with an acuminate point, *a*; the leaves of *S. fulgens* being much narrower, elongate-ovate, *b*. The flowers grow in whorled panicles of a brilliant light scarlet colour, and are much larger than those of *S. fulgens*. *Salvia gesneriflora* was introduced from Central America in 1840.

This brief record of practice is the best reply I can give to

the correspondents who are seeking information on this exceedingly useful and easily cultivated plant.—EX-HIBITOR.

#### STANTHOPEA MARTIANA.

STANTHOPEAS are of very easy culture. Many of the species have singularly beautiful and quaint flowers, but they last only



a very few days in perfection, and to this cause more than to any difficulty attending their culture must be traced their decadence in popular favour. Basket culture suits their requirements better than any other system, and the baskets

need not be very deep. On the bottom place a layer of live sphagnum, and plant the Orchid in a compost of turfy peat, sphagnum, and potsherds. Ordinary stove culture answers well for all the species. The minimum winter temperature

Fig.

Fig. 75.—*STANHOPEA MARTIANA*.

should be 55°, but less or more than this will do no harm, although it is better it should occasionally fall to 50° than rise to 60° or 65°. A high winter temperature is very injurious to most Orchids, starting them into growth prematurely, which, if a high temperature is continued, impairs the constitution of the plants. It is seldom, however, that this happens with *Stanhopeas*, for the genus is not liable to start prematurely into growth.

When the plants are in growth the house ought to be warm, and a moist temperature should be maintained. Keep the plants moist at the roots, and syringe overhead daily should

red spider appear on the leaves. This and thrips are very troublesome, and the plants will not thrive if they are not kept clean. Scale is also sometimes found on the plants, but this is easily removed. It is necessary that the growth be made in a shady position. The basket may at this time be suspended under some of the climbing plants, and which are free from insect pests. For the purpose of shade no plant can be compared to *Clerodendron Thomsoni*, as the leaves of this plant are obnoxious to all insect pests, and afford ample shade. After growth is made the basket must be removed from the shady position to a more open one, and after the

pseudo-bulbs are ripened and the plant is at rest no more water ought to be given than just sufficient to keep the bulbs from shrivelling.

In "Paxton's Botanical Dictionary" instructions are given to pot Stanhopeas. Small bulbs to be raised but slightly above the rim of the pot, and large plants to be placed on a cone of peat a foot or 15 inches high. Such cultural instructions are at least half a century behind the present age, and ought not to have been retained in an edition of the work published in 1868. If the plants are but slightly raised above the rim the result will be such as happened to a gardener in the north. He ordered a collection of Orchids, and among them a Stanhopea was sent. The gardener potted his Stanhopea as directed in "Paxton," and it grew well but never flowered. A complaint was made to the dealer, and he went over to see this healthy Orchid that refused to flower. The acute nurseryman turned the plant out of the pot, and it was found to be beautifully in flower, but its exquisite beauty and powerful fragrance were lost amongst the ample drainage at the bottom of the pot.

Neat baskets of teak or pottery (not wire), such as the one figured on page 339, are best adapted for Stanhopeas; and with very little attention the plants will produce a profusion of flowers annually. But three things must be borne in mind: First, cleanliness; second, a season of growth; and third, a season of rest. *S. Martiana* is a native of Mexico, and produces its white or straw-coloured flowers during the autumn months. By growing plants of this species—*S. Bucephalus*, *S. insignis*, *S. oculata*, and *S. tigrina*—flowers may be had from June to November.—J. DOUGLAS.

### HARDY FRUITS.

MR. TAYLOR admonishes young gardeners to look themselves up a little in the cultivation of hardy fruits; many others of us may take the hint, and profit withal. The hardy fruit department is one of the most important points of our profession. Orchard houses under many circumstances are not what fancy painted them, and to many an industrious gardener they have been a source of grief and disappointment. I have known cases where men have felt continual failures so keenly that they were disposed to give up in despair, while to others they have proved a pleasure and a success as well as a source of profit.

I wish the time had come when not only gardeners but everyone who has a rod of land as a garden would devote some portion of their time to the cultivation of hardy fruits. There is nothing more beautiful to look upon than fruit trees in bloom, and in autumn when laden with fruit what can be more useful and profitable? I am inclined to think that pyramids are the most suitable form of trees, for when once put in form they are easily managed. Fruits of good quality always meet with a ready sale, and ought to be obtainable by all.—P. P.

### A TRIP TO LONDON.—No. 3.

#### BATTERSEA PARK.

THERE is no approach to Battersea Park that is so pleasant as by the river, and country visitors who are desirous of seeing something of other London sights as well as the public gardens will do well to go by steamboat to the park pier from any of the numerous piers above London Bridge. The embankments, the bridges, and several fine buildings are all seen to greatest advantage from the bosom of old Father Thames. This route is always preferable even in a fog to the noisy streets or the horrid "underground." A quiet stroll at Battersea affords many useful lessons as well as much enjoyment to a gardener, more perhaps than can be had in any other place so close to the metropolis. The early morning is the best time for a visit, the place being so much crowded during the evening that one's chief pleasure then consists in watching the enjoyment of others; but in the comparative quiet of the morning there is nothing to call the attention from the plants or to prevent a careful study of their various combinations.

Now for a few of the lessons. Note first the striking and graceful effect of *Ailanthus* and *Sumach*, with a front belt of *Cannas*. Here beauty is evidently imparted by the contrast of three kinds of foliage, all elegant and yet dissimilar. It was a happy idea to place the *Ailanthus* behind the *Cannas*, not only because of its tall growth, but from its spreading habit, so different to the formal erect growth of the *Cannas*. The group is all the more valuable because it is hardy, and may

fairly be expected to become more striking and effective year by year. At another point—a corner—we find a mass of common *Laurel* in splendid health with very large foliage of a deeper shade of green than I had seen it wear before, forming a capital background to some *Palms* and *Musas* associated with *Yuccas*. This was a fine group, and graceful from the absence of crowding, each plant standing sufficiently apart from the others to retain its individuality, and with the foliage of all charmingly intermingled. Another group totally different to this, but exceedingly chaste and elegant in its effect, consisted simply of *Pampas Grass* and *Sealortia elegans*; all the more striking from its position—an alcove formed by the shrubs. Then we come upon another fine arrangement of white *Abutilon* mixed with tall plants of *Fuchsia Sunray*, *Ficus elastica*, the yellow variegated *Abutilon Thompsoni*, and *Acacia lophantha*—a very beautiful group deserving especial notice, and not difficult to introduce into any garden.

Other combinations equally ornamental are seen at every turn, and it would require several papers to describe them fully; these I cannot contribute, but a few other groups shall have a passing notice. The *Polymnias* and *Wigandias* were of more than usual excellence, the huge foliage of both being abundant and very large. The plants were in quincunx order about 4 feet apart in the rows, and 2 feet between the rows; this distance affording ample space for the full beauty of the foliage to be seen, and yet showing no unpleasant looseness about the arrangement. The surface of the bed was carpeted with dwarf ornamental-foliage plants. A number of luxuriant *Wigandias* springing out of a dense wild growth of *Lantana* with pretty pink flowers was very good. Some New Zealand *Flax* mingled with green *Ivy* and variegated *Vines* gave a pleasing relief to a flat expanse beneath a tree. A flourishing little *Araucaria excelsa* about 2 feet high in a circle of about 6 feet in diameter was so beautiful that I could not but regret finding the bed carpeted with yellow foliage instead of a delicate shade of pink, crimson, or blue, either of which would have afforded a lovely contrast to the pale green tint of the spreading branches of the *Araucaria*.

Some of the carpet bedding was excellent, with well-coloured *Alternantheras*, and highly finished in every respect; in other examples the *Alternantheras* were not so bright. A carpet of *Cerastium arvense*, as dense in growth as *C. tomentosum*, and with bright green foliage, was most effective, with the orange red *Alternanthera paronychioides*, *Golden Pyrethrum*, and the carmine *Alternanthera amsona*. This green-leaved *Cerastium* is a great acquisition, and promises to supersede *Tagetes signata pumila* for carpet bedding. *Sedum acre elegans*, a pretty plant with yellow and green variegation, made a capital edging to this bed.

Two large circles had a novel and very beautiful arrangement, consisting of an interior band or chain of twelve small circles, each with a single specimen *Agave* in the centre upon a carpet of *Sedum acre elegans*, enclosed with a band of mixed dwarf succulents, with outer rings of green *Cerastium*, *Golden Pyrethrum*, and crimson *Alternanthera*. The centre of each bed inside this chain of circles had a carpet of *Alternanthera magnifica*, and outside the chain there was blue *Lobelia* with enclosing lines of *Leucophyton Brownii* and *Sempervivums*. The best of the specimen *Agaves* were *A. filifera nana*, a compact dwarf form of a deep green colour, with white longitudinal markings, black-spined tips, and numerous white thread-like filaments recurving from the edges. *A. americana variegata*; *A. verrucosa*, with very broad, deep green, spinous leaves; *A. alternata*, pale green with yellow stripes; and *A. filifera* with broad chocolate spinous leaves mottled with long green blotches.

A host of other subjects claim notice—alpine plants, Fern glades, shady banks not only clothed in green, but really as ornamental as a flower bed, with various succulent plants, Ferns, *Ivy*, *Ajuga*, *Vines*, and *Antennaria*; rocks clothed and fringed with *Cotoneaster microphylla*, *Bramble*, and *Jasmine*, as well as with succulent plants; water edged with *Sedges*, *Ferns*, and *Rushes*, &c. These passing notes will serve, I hope, to show that Battersea grows in beauty and interest in the hands of Mr. Rogers. I have been there many times, and have always come away with a feeling of time improved and knowledge gained, and never more so than on the present occasion.—EDWARD LUCKHURST.

DESTROYING MEALY BUG.—Carbolic acid judiciously mixed and applied to ripe Grapes will effectually disperse mealy bug, but the Grapes must be ripe, and then no injury accrues to

the fruit if well syringed with pure water; but the green berry is completely killed by it.—W. VINCENT.

## PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 4.

**ALSTROEMERIAS.**—These have curiously-formed flowers with delicately-spotted or marbled petals, and being borne upon soft stems they are very enduring in a cut state. They commence blooming in July and continue until September. An open situation is the most suitable, and free from shade. The plants delight in moisture, but yet the soil must be well drained. A soil composed of sandy loam and peat will grow this genus to perfection. Plant the roots from October to November, or early in spring, 9 inches deep, surrounding them with sand, and all they will require after this for a generation is a mulching in autumn of vegetable soil or leaves nearly rotten. *A. aurantiaca* aurea, orange, with carmine spots; *A. brasiliensis*, red, tipped with green; *A. chilensis* varies in colour from red to white; *A. peltata*, crimson and purple spots; *A. Hookeri*, yellow, with red streaks, are a few of the best varieties. *A. pelegrina* alba, white, and *A. pelegrina* rosea, pink, and delicate-striped, are all that need be grown in pots, and they may succeed in front of a south wall if protected. Peat and loam with a fourth of sand will grow them well. They require copious supplies of water in the growing season.

**LILIUMS.**—The powerful odour of some kinds is so unendurable in a cut state in rooms, that I shall not include in this list the splendid *L. auratum* and the stately *L. giganteum*. Delightful as may be their perfume diffused through a conservatory or in halls, it is quite unbearable in the dining, drawing room, or boudoir. I do not wish to discourage the extended culture of the "King of the Lilies," but advise it to be grown in any quantity in beds or in pots, but as cut flowers their odour is not agreeable, and very unlike that of the beautiful *L. speciosum* or *lancifolium* and its many varieties, which from their delicate fragrance, purity of colour, beautiful shading and spotting, with the fine recurve of the petals, at once claim our attention and admiration. The stamens carrying the yellow or brown pollen add immensely to the beauty of the flower; but before cutting them the pollen-bearing parts should be removed by taking them between the finger and thumb, or the pollen, by moving the flower about, will come into contact with other blooms and spoil them.

The *White Lily* (*Lilium candidum*) has large snow-white flowers, and few plants are more truly beautiful or ornamental in garden borders during June. Its odour is powerful, but the blooms used sparingly are admissible in rooms. The double variety is more enduring in a cut state than the single variety.

*L. longiflorum*, with its large pure white trumpet-shaped flowers, is very fine and flowers early, but its variety, *L. longiflorum eximium*, has larger and finer flowers, and the plant is also of larger growth. The *L. longiflorum*, given greenhouse treatment, will flower in May, and as they have foliage in winter they should be duly supplied with water, and have a light and airy position near the glass. In the open ground they do best in rather sheltered situations, as mixed with *Rhododendrons*, in which beds they succeed admirably, having a mulching of partially decayed leaves in winter.

For associating with the white *Liliums* a fine effect is produced by the fiery scarlet of the Martagon or Turn-cap (*L. chalcedonicum*), which has the flowers recurved; whilst the *White Martagon* (*L. Martagon album*) is so choice as to tell well intermixed with scarlet zonal *Pelargoniums*. The double *White Martagon* (*L. Martagon album flore-pleno*) is very fine. The *Scarlet Pompon* (*L. pomponium*) flowers early in May and June, and is sweet-scented; the flowers are pendulous. The *Colchicum Lily* (*L. monadelphum Scovitzianum*) has fine recurved flowers, having black spots on a citron ground. *L. testaceum* is a nankew yellow, and has a fine scent. Fiery are the orange *Lilies*, formerly *L. aurantiacum*, but now *L. croceum*, and still brighter is the variety *L. croceum fulgidum*. I must include also *L. Humboldti*, golden yellow, spotted with crimson, and *L. Leichtlini*, yellow, spotted thickly with crimson. Of the fine *L. Browni* or *japonicum*, with its white large flowers tinted externally with brownish purple, I must also make note, for it is one of the finest of the trumpet-shaped class, and does well in a peat bed.

We now come to the *Tiger Lily* (*L. tigrinum*), which has much-recurved, splendid orange-scarlet flowers, spotted with

black or very deep crimson brown. *L. tigrinum Fortunei* is more floriferous, and the double variety (*L. tigrinum Fortunei flore-pleno*), orange scarlet, and very double; and the very fine *L. tigrinum splendens*, which is much the finest of the *Tiger Lilies* must not be omitted. These associated with the varieties of *L. speciosum* are truly magnificent, and do well in pots, but flower earlier than *L. speciosum*. *L. tigrinum* grown under glass will be in flower about the same time as *L. auratum*, and for filling a vase if we have *L. tigrinum* var. around the margin, and *L. auratum* blooms in the centre, interspersed with sprays of *Bambusa gracilis* and *B. Fortunei variegata*, the effect is superb. *L. speciosum* in variety is, for cut flowers, the finest of all *Liliums*, whether we consider its beautiful form, purity of colour, distinct marking, or delicate fragrance; and by growing under glass, as also in the open ground, its exquisite flowers may be had from July to September inclusive.

Most, or nearly all, *Liliums* may be grown in pots, but some do not do well, as the Martagon group, and all flower grandly outdoors. Beyond the longiflorum, speciosum, and tigrinum vars., with *L. auratum*, there is no need to grow in pots, as the *Lilium* season is surely sufficiently prolonged—viz., from June to October.

*Liliums* should be planted outdoors in October, though planting may be performed up to March, the ground being well and deeply dug and enriched with leaf soil and old cow dung. Good loamy soil, if it has a cool bottom but freed of stagnant water, and containing decayed or decaying matter as peat or vegetable refuse, will grow these plants to perfection, and they will not require attention for many years beyond a dressing of manure or rich compost every autumn, which will protect the bulbs and enrich the soil. Plant 4 to 6 inches deep; and if there are beds of low shrubs with suitable openings for planting, three or more bulbs planted in such spaces twice their diameter apart, will, with the flowers towering above the shrubs, have a grand effect.

In pots it is well to allow a distance of half the diameter of the bulbs from the sides of the pot, and a full diameter between the bulbs. The pots should have, when the bulbs are inserted, space left for a top-dressing of about 2 inches thickness, as from the base of the flower-stem the roots proceed which support the flowers; this top-dressing should be given when the stems are about 6 inches high. The bulbs should be covered about an inch deep. They may be placed on and surrounded by silver sand. The pots must be well drained, and the compost be equal parts of turfy loam, leaf soil, and sandy peat, and half a part old cow dung, and a like proportion of silver or sharp sand. The soil being rather moist when used, and the pots placed in a cold pit or greenhouse away from the drying influence of the heating apparatus, will not require water, or very little, until growth takes place, but the soil must not become dust-dry, that being prevented by watering around the inside of the pot, and not pouring it upon the crown of the bulbs. As growth advances water more freely, and when the flower-buds appear weak liquid manure given twice a-week will increase the size of the blooms. If required to flower early the pots should be introduced to a vinery or other house early in January, and at intervals of a month up to April. The first will flower in May or early in June, and a succession will be kept up until those in a cool greenhouse come in early in August.—G. ABBEY.

## NOTES ON THE BROWN-TAIL MOTH

(*LIPARIS CHRYSORRHŒUS*).

WHERE the Brown-tail occurs it is found in profusion nearly invariably from its habit of colonising, so to speak. And therein, as it seems, is one of the most notable distinctions between it and the closely allied Gold-tail. While the larva of the Brown-tail lives gregariously almost throughout its life (for as a rule they keep together until they spin their cocoons for pupation, though now and then a brood will scatter after the last change of skin), that of the Gold-tail (*L. auriflua*) is solitary in habit, or well-nigh so. As the eggs are laid in patches the young larvae keep together a little at first, but they scatter off long before the winter sets in; and when the time for hibernation arrives each spins his lonely habitation, and, hermit-like, abides until the spring calls forth fresh leaves on the Hawthorn. Two species, therefore, so much resembling each other in the imago state as to be chiefly known apart by the colour of the anal tuft, golden in one species, golden brown in the other, are thus notably distinguished by the habits of the larva. In markings the larva of the two also differ more

than do the two imagos. To me, however, the point of most interest is, how far the assertions of early writers on entomology—the illustrious Kirby, for instance—are to be relied upon as to the injurious effect the species has occasionally exerted on the trees of our orchards, and a lengthy memoir of this moth was compiled by Curtis, the species having the traditional repute also of having occasioned as much alarm in our country at one period as the locust frequently does in warmer climes. The well-known Editor of the "Entomologist," whose acquaintance with insects, derived from Nature herself, is so extensive, agrees with my view that there is much exaggeration if not actual misrepresentation in the statements about the ravages of the Brown-tail, which have been so freely copied from book to book. Certain it is that we have no recent chronicles of harm done by the species, though in France the larva is reported to do injury in some seasons to Apple and Pear trees. What has added to the difficulty of obtaining a correct history of the species is the fact that the allied species has often been mistaken for it, and the confusion renders it impossible to tell sometimes which the writer means. Bennie, a pretty careful observer generally, was evidently under the impression that both species formed winter nests. A clerical naturalist of our day, who in the extent of his writings has few to equal him, omits the Brown-tail from his work on the "Friends and Foes" of the gardener, whether by intention or accident I cannot say.

In the locality where I have watched the species repeatedly—viz., in the vicinity of Milton-next-Gravesend, the nests occur along the Hawthorn hedges, and the insects do not seem averse to a somewhat exposed position. In isolated places a few straggling parties may be found; but the bulk of the Brown-tails have centred themselves along hedges lying in close proximity to each other. They were first observed by me in the autumn of 1873, soon after they had formed their winter nests, and in each season since there has been a gradual increase of numbers, so that what they may arrive at finally is doubtful. Possibly some reader may wrathfully exclaim, "You, a contributor to the *Journal of Horticulture*, ought to set to work and destroy them at once." I beg to differ. What reason have I for cutting off the lives of a number of insects on mere suspicion? In these hedges where the larvæ abound, besides Hawthorn various shrubs grow; the only one, however, they condescend to touch is the Blackthorn. Even Oak does not appear to please them. Willow does not grow in their range, though it has been reported to me that the larvæ have been taken upon that. There are large orchards and many scattered fruit trees in the district around Gravesend and Higham; hence if the Brown-tail was really a dangerous enemy, it is true much harm would ensue were the species to extend itself and proceed to attack trees.

The larvæ are unquestionably sluggish. In one spot particularly I noticed that where one strip of hedge had been defoliated by the hosts of larvæ some of them were dying on the twigs for want of food, yet by merely crawling across a moderately wide road they might have obtained an abundant and fresh supply. This to me tells decidedly against the supposition that the Brown-tail larva could ever be an important garden pest, since almost universally it holds good that those species which are most prejudicial to horticulture have a facility in transporting themselves from place to place; and nothing can be more simple than the operation which in any particular locality would soon largely reduce the number of, or even exterminate the larvæ of the species. It could be done, too, without putting the insects to any pain, supposing, that is, they are capable of that sensation. All that is necessary is to go amongst the bushes in the winter with a pair of shears, clip off the white nests of the larvæ, which are very conspicuous on the bare twigs, and then burn them. At this moment I could indicate, perhaps, as many as five hundred nests, which, at an average of a hundred larvæ to a nest, would represent fifty thousand individuals; but I am not prepared to advise such a "slaughter of the innocents." Though some folks may argue that there is a double reason why the Brown-tail larva should find no favour at our hands—for besides the known damage it does to the Hawthorn, the hairs of the species have a marked and specially unpleasant effect on the human skin. Of course there are those who feel them not, just as there are those who can defy the attacks of fleas, but with many persons these hairs produce painful swellings somewhat akin to nettle-rash; and you cannot have them once and be done with them, for they come up again and again if you meddle with the larvæ. I have authentic reports of persons who cannot ap-

proach without discomfort the hedges on which these are feeding; and though the urtication is produced at all times by the larvæ when they are in a state of activity, it is worse when parties of them are casting their skins or forming their cocoons, as the loose hairs float about in the atmosphere.

Lastly, I would say that it would be of much interest to myself, and doubtless others, if any horticulturists who have had under their own observation any case where this species attacked fruit trees (or Roses?) would communicate such details as they can give.—J. B. S. C.

## NOTES AND GLEANINGS.

We have received from Messrs. Rivers & Son of Sawbridge-worth a branch of the PLUM BONNET d'ÉVEQUE, which is so laden with fruit as to give it the appearance of a branch of Damsons. This is an excellent late Plum, and possesses a flavour which is unusual in Plums of this kind so late in the season. It appears to be an unusually great bearer. Accompanying this were some fine large fruit of Reine Claude de Bay, and handsome fruit of that delicious October Pear Beurré Hardy.

In the nursery of Messrs. Kelway & Son, Langport, Somerset, may now be seen growing an extraordinary crop of Mr. Kelway's new CUCUMBER CONQUEROR. Specimens of this variety were exhibited at the Royal Horticultural Society held at South Kensington September 1st. The seed was sown May 15th, and thirteen plants were planted-out June 2nd, each plant now bearing on an average (without the aid of artificial heat) thirty fruits, from 18 inches to 34 inches in length, and weighing from 2 to 4½ lbs. each. The house in which the above are growing is erected and glazed on Mr. Kelway's new principle, without wood or paint being exposed, thus doing away with the old and troublesome method of fixing the glass with putty.

At a Meeting of the HORTICULTURAL CLUB, held at the Club House, 8, Adelphi Terrace, on Wednesday last, the following gentlemen were admitted as members:—O. J. Bigley, Bridge Hall, Bury; F. G. Dougal, Clyderdale Bank, Glasgow; George T. Rollison, Tooting; Joseph Stevens, Grassmere, Byfleet, Surrey; Hugh Austin, Glasgow; and Edward J. Beale, Stonydeep House, Teddington. We may add that all the arrangements are now complete, and that the Club has every prospect of a successful career.

We are informed that in the counties of Cumberland, Westmorland, and north-west Lancashire GOOSEBERRIES, APPLES, PEARS, DAMSONS, AND PLUMS have all been equally good, and the trees have had to be supported to enable them to bring their fruit to perfection. The markets are so full that American fruit is very rarely seen now, where are great quantities used to be sold in ordinary years. Potatoes are also a splendid crop, and little affected by the disease; whilst Hazel Nuts, Acorns, Blackberries, Elderberries, Raspberries, Haws, and all wild fruits are in great abundance.

MESSRS. CARTER & Co., 237-8, High Holborn, have received a letter signed by the Executive Committee of the Cologne Exhibition, informing them that the Jurors have awarded them the silver medal for the GRASS SEEDS supplied for the creation of turf on the exhibition grounds, &c.

At the sale of ORCHIDS late the property of John Russell, Esq., Mayfield, Falkirk, by Mr. J. C. Stevens on the 1st inst., the following prices were realised:—*Cypripedium Lowii*, £21; *Oncidium splendens*, £31 10s.; *Saccolabium Russellianum*, £29 8s.; and *S. Holfordii*, £23 2s.; *Angraecum sesquipedale*, £25 4s.; *Aërides Fieldingi*, £31 1s.; *A. margaritaceum*, £26 5s.; and *A. Veitchii*, £36 5s.; *Cattleya Russelliana*, £44 2s.; *C. labiata Warnerii*, £30 9s.; and *C. Dowiana*, £27 10s.; *Coleogyne cinnamomea*, £23; and *Saccolabium guttatum*, £65 2s. There were 639 lots offered; the total proceeds of the sale being £2211 14s.

MESSRS. KEELING & HUNT have received a letter with reference to the FIRST SHIPMENT OF AMERICAN PEACHES to the London market, stating that "by this successful experiment the Allegetti Refrigerator Company of New York City have demonstrated that they can place the American Peach in the London market."

## NOTES ON VILLA AND SUBURBAN GARDENING.

BLANCHING ENDIVE.—As winter approaches this harder kind of salading is more useful than at any other time of the year.

In order to make it tender a regular process of blanching should be carried out. There are various ways of doing this, but nearly all are simple in application. The first, and perhaps one of the oldest methods, is that of tying-up the leaves about two-thirds the way up the plant, enclosing the heart in such a way that no light can reach it. This answers the purpose very well, but some attention is necessary only to tie-up sufficient to last for a certain length of time. By this mode of blanching, and if the tying is properly done, much of the wet will be thrown off by the leaves, and rotting of the plants will be averted.

The broad-leaved Batavian is a cabbaging sort, and is about the hardiest, and will endure exposure to wet after blanching without rotting for a considerable time, but not so the Dwarf Green-curbed and the Moss-curbed, which should be blanched in another way. Two boards placed lengthways over the rows and set-up ridgelike would keep the plants dry and blanch them; or, if only few are grown and pots can be spared of the right size, the plants can be gathered-up with the hand and the pots inverted over them, stopping the holes up at the bottom. This is probably the simplest and the best plan for the amateur to adopt.

In whatever way the plants are covered they must be perfectly dry at the time, which is generally in the afternoons of sunny days. As the season approaches towards the time for frost and snow the plants should be taken up and placed under the protection of a frame, and by plunging the roots in damp soil the plants will keep fresh a long time. In the absence of frames I have many times taken up the plants and plunged them thickly under a wall, and covered them over with boards, pots, or hand-glasses, and then covered the whole with straw or mats—in fact, almost anything that will keep them dry and free from frost. Where salads have to be supplied daily through the winter months, and Endive being one of the principal ingredients, any means whereby it can be preserved is to be sought after.

While on the subject of salads I should state that the Lettuce, being so tender and sweet, must be retained for the salad bowl as far into the winter as possible. It is my custom to sow a lot the last week in July or the first week in August on a dry border under a wall. The plants from this sowing are not transplanted, but merely thinned-out to proper distances, say from 8 inches to a foot apart. These are now turning-in well, but are not large. They will shortly have some glass or boards placed over them at night. Plants which are in the frames will have all the air possible in fine weather, and if any are left unprotected they will be used first. The best sorts are the black-seeded Bath Cos and Tom Thumb Cabbage Lettuce. The former sort should be chosen from a later sowing to stand over the winter.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

It is desirable to sow *early Peas* on a warm border about the end of this or the beginning of next month, and the gardener who would be successful with this, or indeed any other crop, must make previous preparation. It is a mistake to allow the ground to remain undug until the time that the seeds have to be sown, and then to either dig or trench it hurriedly, sowing the seeds immediately after. At no season of the year should this be done, and late in the autumn more care is necessary than at other time. In many places the time of the head gardener is much taken up with the forcing and decorative departments, and the young gardeners are seldom interested in kitchen-garden work. The general belief is that anybody can grow Cabbages and Turnips, the result being that the work is done in a careless manner and with but little previous forethought. Some of our ground has been trenched, but it is at present quite unfit either to receive seeds or plants, having turned up so wet. Now if the trenching had not been done until it was time to sow the seeds, there would have been no time for any further preparation. Owing to the rapid succession of crops it is not always possible to give everything the best chance; but when the soil turns up wet, as it is at present after so much rain, it ought if possible to lay a month, and the surface should be forked over lightly two or three times, taking the opportunity to do it when the surface is dry. Exposing the soil to the air in this way causes it to crumble down finely, and it is then in the very best condition to receive the seeds. We are now trenching a border for Peas, and a month hence will be early enough to sow them. A border facing south and sheltered on the north side by a wall is the best position for early Peas. The best sorts are Laxton's William I. and Alpha, the last-named is an early wrinkled Marrow.

The same attention is necessary for *Cauliflower* plants; these are planted in handglasses, but we likewise obtain some dry fine loam and place in the handlights, covering the surface to the depth of 2 inches or more. Our glasses are 22 inches square, and contain four plants, one at each corner; one or two extra are planted in each light, in case of any accident to any of the permanent plants during winter. The remaining plants are

pricked-out into portable boxes. The boxes can be moved to any position, and during severe frosts they are placed in glass frames. The thermometer has not yet fallen below 45° at night, but frosts may be expected at any time. Until sharp frosts set in late Cauliflowers are best in the ground, but towards the end of the month it may be necessary to remove some of them to an open shed or some such place. The plants are pulled up by the roots, and have a portion of the outer leaves removed, and they may be planted in some damp mould. It is better to store such plants in a vinery or Peach house from which the fruit has been removed, as light and air is of much benefit. We have occasionally pulled the plants up with the roots, and hung them by the heels in a shed, where they keep good for two or three weeks at this season. Lettuce has been planted-out in rows a foot apart and about the same distance between the plants. Hick's Hardy White Cos is our standard variety. All crops must be kept free from weeds, and on any drying day the Dutch hoe may be run through the ground, even if there are no weeds to be destroyed.

### ORCHARD HOUSE.

The trees have now been removed out of doors to be plunged in cocoa-nut fibre refuse. There is no better material than this for plunging pots in either out of doors or under glass, and the same material will last for many years. When it has decayed considerably worms get into it, but they are prevented from working into the pots by placing a handful of soot under each pot; this is obnoxious to them, and they will not go near it. The pots are now plunged up to the rim, and some fresh fibre refuse will be placed over the surface to prevent the frosts from penetrating to the roots. Many of the trees become mis-shapen and unhealthy in the course of years. All that are not worth retaining are destroyed as soon as the fruit is gathered, and a succession of plants kept up by purchasing "maiden" trees (that is, trees one year from the bud) from the nursery. The roots are trimmed back to allow of trees being potted in 9 or 10-inch pots. The trees are received in November, and are potted at once, the pots being plunged out of doors with the others; the potting material for these is the same as that used for the older trees. Nearly all the best new and old sorts of Peaches and Nectarines have been tried in our orchard house. Those most preferred are Peaches Early York, Royal George, Early Grosse Mignonne, Bellegarde, Barrington, Grosse Mignonne, and Dese Tardive. Of Nectarines—Lord Napier, Elruge, Violette Hâtive, Pine Apple, and Victoria. Three of the Nectarines have been raised by Mr. Rivers, and they are very distinct and splendid fruits.

### ORCHID HOUSES AND PLANT STOVE.

In the cool Orchid house we have in flower at present *Odontoglossum crispum* (Alexandree); its lovely flowers last in beauty for a very long time at this season. *Epidendrum vitellinum* has been in beauty for three months, as has also *Masdevallia Veitchii*, the most beautiful of the species except, perhaps, the more free-flowering *M. Harryana*. *Odontoglossum grande* is also in beauty, while *Oncidium tigrinum* and *Odontoglossum bictoniense* are throwing-up flower spikes. There are many beautiful *Odontoglossums* and other Orchids that will be in flower during the winter months. Many persons fond of Orchids, but who object to the steaming atmosphere of an East Indian temperature and the expense of its management, can now with some pleasure, and at much less expense, indulge their fancy for this fine class of plants. The temperature with little or no artificial heat ranges from 50° to a maximum of 65°. We do not dry any of them off entirely in winter, but no more water is given to many of the species except sufficient to keep the sphagnum alive on the surface of the potting material. *Masdevallias*, especially *M. Harryana*, continue to grow during the winter months, and, indeed, many of the different genera are more or less active. Those plants that are in growth must have sufficient water at the roots to perfect the pseudo-bulbs. In applying the water none should be allowed to fall upon the pseudo-bulbs or leaves at this season.

The *Cattleyas*, *Dendrobiums*, &c., that have completed their growth in the Brazilian house do not receive much water, and only sufficient is given to prevent the bulbs from shrinking. The minimum temperature is kept as near as possible to 55°. The same treatment is required in the East Indian house, water only being applied when the roots have become dry. *Phalenopsis* and *Oypipediums* require rather more water than most of the others, and a little difference of treatment is necessary when the growth has not been completed. Some few Ferns in the stove of small size had filled their pots with roots, and it has been necessary to repot them, doing it carefully, and not shifting into pots much larger than the plants were growing in previously. After this month nearly all plants require rest, as but little growth is made, and the soil is apt to become sour if it has not been thoroughly penetrated by the roots.

### FLOWER GARDEN.

The beds and borders still look gay with *Pelargoniums*, *Verbenas*, &c., but decayed trusses of flowers and withered leaves render them unsightly; these must be picked off frequently.

The grass edgings and lawn must also be kept neat and trim. In many gardens there is a tendency to relax the attention that has been bestowed incessantly during the summer months; this should not be, and until the frost kills the plants we must labour to preserve neatness.

Excepting a few Tricolor Pelargoniums that had been dug up and potted, a sufficient stock of all other plants were obtained from cuttings. If it is necessary to lift a quantity of Pelargoniums it ought to be done at once, to allow of the plants being established before the winter months. A very large proportion of the oldest leaves should be removed before potting, for if the leaves are left on they will decay and have to be removed in a few days, and by removing them before potting much after-labour will be avoided. Cuttings of shrubby Calceolarias have been put into boxes; these are placed in a frame against a north wall until roots are formed, when the boxes are removed to a more open place.

We have planted out the Pinks in beds, but it has required some ingenuity to have the ground dry enough for planting. The beds had frequently to be forked over, and some very dry mould from the surface of the Vine borders mixed with the soil was of much benefit. The plants are put out in beds at the distance of a foot apart each way. Cloves have also been taken from the parent plants where they were layered, and planted in the place where they will flower. Carnations and Picotees that were potted a few weeks ago are now rooting freely. The lights are entirely removed from the frames by day, and placed over the plants at night or to throw off heavy rains. Miss Joliffe, which is usually classed amongst the perpetual-flowering Carnations, is quite different in habit from the usual type of them. Plants that were propagated from cuttings early in the year are now in full flower. They are now out of doors, and have been in the same position all through the summer months. It would be well worth a trial to plant a bed of this variety from spring-struck cuttings. The plants would flower about the end of September or early in October, and would be quite a novel feature in the garden.—J. DOUGLAS.

### TRADE CATALOGUES RECEIVED.

Jonathan Booth, Pole Lane, Fallowfield, Manchester.—*Catalogue of Carnations, Picotees, Pinks, and other Florists' Flowers.*

Eug. Verdier Fils Atné, 72, Rue Dunois, Paris.—*List of New Roses.*

Andre Leroy, Près la Station du Chemin de Fer, Angers.—*Descriptive Catalogue of Fruit and Ornamental Trees.*

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

**ELECTION OF ROSES.**—The returning officer would feel obliged by all lists being sent in by the 20th October, as he hopes to have the portion pertaining to the newer varieties in the issue of the first week in November. His address is, Mr. Joseph Hinton, *Warminster*.

**ADDRESS (C. Z.).**—We cannot name a dealer. See advertisement in our columns last week.

**ROSE TREES MILDEWED—CLEMATISES (C. T.).**—The Roses, though your house may be in a low and shady situation, may suffer from mildew owing to want of water at the roots, especially as they are trained against the house where the soil is dry. Mildew is of two or three kinds. One is promoted by a check to the sap caused by want of water; another kind by damp, owing to stagnant air. The best Clematises are Jackmanni, Rubro-vioacea, lanuginosa, Miss Bateman, and Lady Lonsborough. There are none that bloom either more freely or so continuously as Jackmanni. Do not discard your Roses till you have tried liberal treatment with plenty of liquid manure.

**PEAS FOR EXHIBITION (One in a Fir).**—Commander-in-Chief, James's Profile, Dr. Hogg, Connoisseur, Omega, G. F. Wilson, Duke and Duchess of Edinburgh, and Best of All have been exhibited to great advantage at the principal shows this season. Mr. Turner's coming Pea Dr. Maclean is a grand variety.

**LARGE GREEN GOOSEBERRIES (Idem).**—General, Green London, Shiner, Thumper, Telegraph, and Stockwell.

**STRAWBERRIES IN AUTUMN (Miss D.).**—We are glad to hear of your success. It is common for plants which have been forced in the spring to bear an autumn crop after being planted out, but not usual for established plants to do so.

**FORCING LILY OF VALLEY (P. F. S.).**—Pot the clumps in two parts loam and one part leaf mould or old mouldy manure. Do not fill the pots too full of soil and nearly cover the crowns. Plunge them in cocoa-nut fibre, covering them slightly, and in January introduce them into a gentle heat. If they can be plunged in a bed of leaves, affording a gentle bottom heat, it will be advisable to do so. When in active growth place them in a light position near the glass. The time of flowering depends entirely on the time they are introduced into heat and the temperature which is kept up. The temperature which is given to Vines will be suitable for them, for the increase of heat which is needed as the Vines grow will be correct also for the Lilies. You cannot have anything better than cocoa-nut fibre as a plunging material for your Hyacinths.

**EARLY BEATRICE AND EARLY LOUISE FRANCHES (F. O. M.).**—The Early Beatrice is the earlier of the two, and the earliest of all Franches. The Early Louise is a little later, but is a larger and finer fruit.

**TENNANT REMOVING ROSE TREES (de Old Subscriber).**—A tenant having planted in the garden of which he is the tenant Rose trees of any kind, or any other tree, shrub, or plant, has no right when leaving to take them or any one of them away unless the landlord gives him permission.

**VINES UNHEALTHY (A Subscriber).**—Take off the surface soil from the border, just baring the roots, and replace with 4 inches of fresh soil, and if leaves and charcoal can be added all the better; over this place 6 inches of rich manure, and the rains will wash in its virtues. You have done right in thinning the wood, and if you now apply fire heat with air and a dry atmosphere it will ripen, and Grapes will follow in due course.

**VARIOUS REFUSES FOR MANURE (Rouven).**—The sulphate of lime is a useful manure for Clovers, and the spent tanner's bark as it slowly decomposed would afford some nutriment to the grass; but that decomposition is very slow. Tanner's bark kept in a heap until decayed is a good manure. Gas lime and sulphate of lime mixed with night soil as a disinfectant would be a good manure for all kitchen garden purposes. To Rose trees the quantity applied should be small.

**MAGGOTS AT THE ROOTS OF POT PLANTS (W. S.).**—The maggots are only due to the presence of decaying matter in the soil, and may be destroyed by soaking the plants, after stopping the holes of the pots with clay, with clear lime water, which may be made by pouring water to line in a tub at the rate of three gallons to a pound of fresh lime, and allowed to stand forty-eight hours, and then employ the clear lime water. The pots should be deluged with water for about three hours, and then have the drainage set free by removing the clay stopping.

**EVERGREEN AND OTHER SHRUBS FOR SMALL GARDEN (E. H.).**—*Aucuba japonica*, *Berberis Darwinii*, *B. aquifolia*, *Buxus arborescens* and var. *marginalis*, and *Handsworthianus*; common and Portugal *Leucalis*, *Ilex Hodgkissii*, and the Silver and Gold Variegated *Mollies*, *Cupressus Lawsoniana* and var. *striata*, *Juniperus hibernica*, *Taxus baccata pyramidalis*, *T. elegantissima*, *T. fastigiata*; *Thujaopsis borealis*, *Thuja plicata*, and *T. aurea*. The preceding are all evergreen, and to those add *Rhododendrons*. Deciduous trees are Double Scarlet, Double Pink, and Double White Thorns, and Scotch Laburnum (as standards for the outside), *Duchess cruenta* flower-pale, *Bilbes sanguineum* and its variety *album*, *Spines arlesolia*, *Syringa pemosa* and var. *alba*. Those will be ample, and all are very hardy.

**STORING FILBERTS (Felix).**—Remove them from the husks, and store away in earthenware jars or packed in dry sand, and place them in a cold and rather damp cellar. If you wish to retain them in the husks have them thoroughly dry and place in the jars packed in silver sand, also thoroughly dry, and place in a cool rather damp cellar. Walnuts may be kept in the same way, but "hulled" of course.

**FUNGUS RINGS ON GRASS (S. M.).**—The cause may be due to the dryness and peculiarity of soil, but the effect is the fungus growing in circles, and it may be destroyed by making holes about 8 inches deep, and giving a thorough soaking of lime water. Small holes will answer, thoroughly saturating the ground.

**TREES FOR BLEND (E. G. H.).**—Lombardy Poplar is of quick and close growth, and the best of all deciduous trees for the purpose you name. Sycamore is also quick-growing, and though good in summer is not nearly so good in winter as the Lombardy Poplar from its closer growth. The best evergreens are Corsican Pine, Scotch Fir, and Austrian Pine, but the most beautiful and equally effective are the American Arbor-Vitæ and Lawson's Cypress. These grow at a rate of about half that of the deciduous trees.

**DAHLIAS BROKEN BY WIND (A Beginner).**—It will not make any difference to the storing and growth of the shoots from the tubers in spring. Take them up at once and store away after drying in sand in a place safe from frost, but as cool otherwise as possible. The ground for Dahlias ought to be well trenched, very liberally manured, and thrown-up roughly for the winter during dry weather in November, throwing it level by forking-over the first dry weather after February. No manure will be required at planting time, but some rich soil should be placed around each plant, supplementing it by mulching and copious waterings.

**PLANTS FOR OUTDOOR HANGING BASKET (W. A. Grow).**—For a basket of the size you name we should have the different varieties of Ivy-leaved Geranium, as the white and pink-flowered, and the variegated Silver Gem with pink flowers, and *L'Elegante* variegated kind with white flowers. Put in a plant of the kinds named at the corner of the basket, and between each a plant of *Lysimachia nummularia*, and have in the centre a good plant of *Tropaeolum Ball of Fire*. The basket should be done-up early in April, using rich soil, and by growing on in a greenhouse, and hardening wall off, it will be in fine condition by the end of May for suspending outdoors. Water very liberally during the summer, and give liquid manure twice a week.

**DEFINITION OF PINK, CLOVE CARNATION, AND PICOTEE (Rose).**—The Pink differs from a Carnation in being of lesser growth in all its parts, and the flowers are "laced," or have a circular stripe near the edge of each petal, and have an edge of white both outside and inside, the ground colour being white. The Clove Carnation has the edges of the petals serrated, the colour, stripes, or flakes, or splashes running from the edge to the centre of the flowers; or the flowers are self-coloured, and all have the odour of Cloves. The Carnation has the marks on its petals from the centre to the edge, and through the edge in flakes or stripes of colour. The Picotee has its coloured marking only on the outer edge of its petals. The characteristics and properties of each may be learned from our "Florists' Flowers," free by post from our office for 5d.

**SAND AND SALAD OIL AS A FERTILISER (G. C.).**—It will make an excellent fertiliser.

**ROSE HOUSE (E. B.).**—Your house, we presume, from having to be fixed against a south wall, will be a lean-to; but we should have it, nevertheless, a half-span. The width, 21 feet inside measurement, will give you 8 feet for border all around the outside, 8 feet for each pathway, and a central bed of 9 feet. All the Roses to be planted-out, the walls to be built in the arched fashion, or pillars of a brick and half with 2-foot openings between, and arched over just below the ground level; this will permit of the coats passing from the inside to an outside border. The border to be 2 feet 6 inches deep, with 9 inches of drainage, and having drains not less than 2 feet apart with proper fall and outlet. Good sound rather strong turfy loam with a third of well-rotted manure and an eighth of half-inch bones would form a suitable compost for the border. The walls we should not take up higher than 2 feet



and have 8 feet of side lights, and all made to open; the roof should have an angle of 45°. Beneath every rafter, which ought not to be nearer than 4 feet, have four wires fixed 6 inches apart, and 15 inches from the glass, and in addition we should have arches over the pathway at the same distance apart as the rafters, and the back wall wired—the wires 6 inches apart, and not more than three-quarters of an inch from the wall. In the border all around plant dwarfs, alternating with low standards, or better all dwarfs, training them as pyramids. The central bed will hold three rows of plants—a central one of standards, and two of dwarfs trained as bushes or pyramids. It will be desirable to have the house heated with two rows of 4-inch pipes in an open flue in the pathway, with an iron grating as a covering. This will enable you to forward the plants, and to prevent injury from severe weather, but keeping the house cool and dry after September and up to the middle of January, giving plenty of air, for which you need to make provision at the upper part of the roof, having a light to open the whole length, and 2 feet 6 inches in width. The kinds we advise are, for the rafters, *Tea-scented*: Belle Lyonnaise, Catherine Marmet, Climbing Devonensis, Gloire de Dijon, Madame Cécile Barbot, Madame Hippolyte-Jamain, Madame Levet, Tour Bertrand, Helvetia, Annie Oliver, Cheshunt Hybrid, Marcellin Roda, and Perle de Lyon. *Noisette* for the same purpose: Marie Acery, Claire Carnot, Coquette de Blanches, Lamarque, Miss Gray, Ophir, and Solitaire. The back wall we should cover with *Marchal Niel*. For the arches or pillars: *Tale de Bourbon*, *Emotion*, *Gloire de Rosemère*, and *Hornea*. *Perpetuelle*: Alfred Colomb, Auguste Newmann, Baronne de Bonestettin, Baronne Louise Uxnull, Boule de Neige, Edward Morren, La France, Madame Liabaud, Charles Lafeyvre, Princess Beatrice, Souvenir de Julie Gonod, Thomas Mathew, and Suzanne Wood. *China*: Ducher, Cramoisi Supérieure, and Clara Sylvain. *Bourgs*, *Tea-scented*: Alba rosea, Duchesse of Edinburgh, Devonensis, Gogebault, Jeanne d'Or, Madame Bravy, Madame Jules Margottin, Marie Slaley, Nazaire, Odorata, Smith's Yellow, Safrano, Sombreuil, and Triomphe de Graillos Fils. *China*: Mrs. Bosanquet, Odine Forestier, Margarita, and Rêve d'Or. *Perpetual*: Captain Christy, W. Wilson Saunders, Reynolds Hale, Claude Levet, Bessie Johnson, Antoine Verdier, Baronesse Rothschild, Prince Claude Bernardin, Centifolia rosea, Clemence Raoux, Dr. Andry, François Michelon, Louise Peyronny, Madame Orapet, Madame de Ridder, Madame Marie Chrode, Marguie de Castellane, Maurice Bernardin, Pierre Nothing, Thym Hammarick, Thérin, and William Jesse.

**LILIAUM WALLICHIANUM AND LONGIFLORUM (W. H. O.).**—*Lilium Wallichianum* is a sub-species of *L. longiflorum*, but is much superior to it. The nurseryman are quite justified in describing it in their catalogue as a distinct Lily. *L. longiflorum* proper is a native of China and Japan, while *L. Wallichianum* is a native of the Himalayas of Nepal. It grows from 4 to 6 feet high, while the true *longiflorum* has a stem of from 1 to 2 feet, nor are the flowers in the typical species so large as they are in the other. About the same number are produced on one stem—namely, from one to two, but frequently the flowers are solitary.

**PRESERVING BERGAMOT ESPERME PEAR (J. V.).**—You either kept the fruit in a room that was too dry, or gathered it too soon. The cellar would be a more suitable place. The best way is to lay the fruit out carefully on shelves. It is no advantage to wrap it in paper or to cover it with cut hay.

**SEAKALE GROWING AND FORCING (Subscriber).**—Seakale may be increased by seed or from cuttings of the roots. The seed, first breaking the husks, may be sown in rich soil in April, in drills 18 inches apart, the plants to be thinned out to a foot distant in the rows. Some of these form good crowns the first season, and all are in fine condition for forcing the second season. Cuttings of the roots should be made in lengths of 6 inches, cutting the bottom of each in a tapering form, the top portion being cut straight across. These if made now and buried in light soil will form eyes by the spring, and the cuttings can then be planted to mature the crowns, thinning the eyes to one on each cutting. For forcing, the roots must be taken up and closely planted in soil placed on some fermenting material, as leaves or tan, and the top growth must be made in a perfectly dark place. The heat should range from 55° to 65°. If the plants are required to be forced under pots in the open garden, the seeds or roots should be placed in clumps, having three or four crowns in each clump, these clumps to be 8 feet distant from each other. The summer culture of the plants is limited to constant hoeings and copious supplies of water, and removing the flower heads as they come into bloom, preserving all the leaves on the stems. The soil must be deeply trenched and heavily manured.

**GRAPES SCALDED (R. H. H.).**—Your Vines have been kept too close, and especially air has not been given sufficiently early in the morning. The Vines also appear to lack vigour. Remove the surface soil from the border and replace with loam and bones, and surface with rich manure. This with judicious ventilation will improve your Vines another year.

**COST OF LABOUR (E. B. T.).**—We have no means of assisting you in your first question. Your second shall have attention next week.

**PEACHES ON OPEN STANDARD TREES (H. W.).**—It is not uncommon for the double-blossomed Peach tree to bear fruit, but we have not before found the fruit so highly flavoured as are those you have sent.

**VARIOUS (J. Sargent).**—The plant you refer to is the variegated Pear-shaped Gourd, not at all uncommon, and which may be had of any seedsman. The Red Antwerp Raspberry is a sweet one, and for the other Prince of Wales. A good outdoor Grape for a wall is Early White Malvasia if you wish a white one, and Miller's Burgundy if a black one.

**NAMES OF FRUITS (Gonsaught Subscriber).**—*Apples*: 1, Court-Pendu-Plat; 2, not known. *Pears*: 1, Marchal de Cour; 2, Achan; 3, Beurré Caplismont. (J. B.).—1, Transparent Codlin, a good old English kind; 2, Ganges; 3, Norfolk Stone Pippin; 4, Mutton Square, an old and valuable Lancashire variety. (E. D. O.).—*Crataegus coccinea*. (M. F. W.).—Fondante d'Autonne. (O. Merdon).—It is very like Crasane, but we are doubtful as to its being so. We will examine it and reply in next number. (T. W., Biding).—Pear, Beurré Rance; Apple, Ringwood Pippin. The Plum was so bruised we could not distinguish it. Plums for identification should always be accompanied by the young wood and leaves. (S. W. S.).—1, Beurré Diel; 2, Winter Nalis. (F. W. Pine).—1, Suesette de Bay; 2, Red Doyenné; 3, Louise Bonne of Jersey; 4, You have sent three distinct sorts under this number. One is Autumn Bergamot, one Vinesse, and one Red Doyenné. *Apples*: 1, Golden Reinette; 2, Ribston Pippin; 3, Golden Russet. (R. L. J.).—1, Beurré Diel; 2 and 4, Vicar of Winkfield; 3, Uvedale's St. Germain; 5 is malformed, but looks like Brougham; 6, White Doyenné. We cannot make out the others, they are so small specimens. The best work with coloured plates of Pears is Mr. Van Houtte's of Ghent. It is called Van Houtte's "Pomons." (Fur Hort.).—1, Red Autumn Galville; 2, Boston Russet; 3, Jolly Beggar; 4 and 5, not known; 6, Red Doyenné. (L. S.).—1, Cokham;

2, Lewis' Incomparable; 3, Ribston Pippin; 4, Cox's Orange Pippin; 5, White Astrachan; 6, Tower of Gammia. (J. Fairweather).—2, Bouvier Bourgmester; 3, Beurré d'Amant; 4, Doyenné Boussoch; 5, Emilia d'Hayat; 6, Beurré d'Alençon; 7, Winter Nalis; 8, Pesse Colmar. (Ohas. T. Hall).—1, Herefordshire Pearmain; 2, Biggs' Nonesuch; 3, Lodgecombe Nonpareil; 4, Cox's Golden Drop; 5, Pearson's Plate; 6, Keswick Codlin. The seedling is new to us, and is no doubt a good early cooking Apple. The *Alternanthera* were all shrivelled. (W. B. K.).—*Pears*: 1, Beurré Benoit; 2, Pesse Colmar; 3, Beurré Diel. *Apples*: 1, Callini; 4, Aromatic Russet; 5, Sturmer Pippin. (East Dene).—2, Fondante de Noël; 3, Beurré Sterckmann; 4, Duchesse d'Angoulême; 5, Thompson's; 7, Marie Louise; 8, Eater Beurré; 10, Glou Morceau. (Somerset).—1, Flemish Beauty; 2, Baronne de Mallo; 3, not known; 4, Doyenné du Comice; 5, not known; 6, Jean de Witte. (G. H.).—3, Nonesuch; 4, Braddick's Nonpareil; 5, Cobham; 6, Court-Pendu-Plat; 7, Autumn Pearmain; 8, Reinette du Canada; 11, Mère de Ménage; 13, Pile's Russet.

**NAMES OF PLANTS (Felix).**—The berried plant is *Solanum Capsicastrum*, and the fruit is not poisonous; the other is *Cyperus alternifolius*. (M. H. M.).—*Linum arboreum*. (E. J. S.).—The shrub is *Crataegus acutrolis*. The Ferns are without fruit, except 8, which may be a form of *Adiantum ethiopicum*. (C. W.).—Specimens insufficient. (A. S.).—1, *Adiantum cuneatum*; 2, *A. concoloratum*. (N. W.).—*Polystichum angulare*, var.; 3, *Asplenium* (Darce) Bichard; 4, *A. bulbiferum*, var. (S. Dowe).—1, *Fellex hastata*; 2, *Phymatodes* sp.; 3, *Adiantum pedatum*; 4, *Athyrium Filix-femina*, var.; 5, *Fellex crataeg*; 6, indeterminate. (W. H.).—*Quercus coccinea*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### AUCTION SALES.

We have received a letter from a gentleman asking for advice concerning the best method of selling a large portion of his surplus stock of poultry. He writes thus: "I have about 120 birds for sale, principally adults, and nearly all prizewinners. They comprise eighty hens, ten cocks, and about thirty chickens. They have been collected by me from time to time in the past twelve months from the best yards. I have determined to part with all those I do not actually want to keep for my own use; and now comes the question, Shall I sell them by auction? If so, when is the best time? Where is the best place? And what will be the probable sum they will fetch?" We hardly know how to reply to him, for it is a great question whether poultry auction sales do answer or not; anyhow, the queries raised by this gentleman have called the subject up, and as so many will soon be having a large quantity of surplus birds on their hands a few words about sales of birds and whole yards of poultry by auction may not be out of season.

The success of poultry auctions must depend, as in all such similar sales, on the quality of the birds, the company, and the place of sale. A good yard of birds, which must be really sold out-and-out, will very often bring a good company and realise good prices, provided only the nature of the sale is well known. But such auctions are very few and far between. We hear frequently that there are to be sales from celebrated yards, and then catalogues are issued describing the winnings of champion this, and the silver cups of champion that, but when the auction comes off we find there are large reserved prices on these champions, for they are never intended to be sold, and are only entered in the catalogue to make a display and to draw a company together. These auctions can never be said to answer, for even if amateurs and others less learned in poultry lore are brought together by the tempting baits offered in the shape of champion winners, which are really never meant to be sold, they soon have their eyes opened, and the surplus stock only realises poor prices. Such auction sales of poultry are seldom repeated, and can never be called a success, consequently we could never recommend anyone anxious to sell off a lot of inferior specimens to take such a course.

The next stage in poultry auctions would be a sale where the birds were *bond fide* surplus stock, entered as such in the catalogue, in company with baits of no sort or kind, except with of course the reputation of the owner as a breeder or exhibitor, and the highest bid in each case to be the purchaser, there being no reserved prices. Such a sale should answer, and the birds fetch fair prices if they come from yards of any notoriety, or are guaranteed to be of certain strains; still they frequently do not do so, and we have a remarkable instance in Lady Gwydyr's sale a week or two back at Ipswich. Certainly it was held rather too early in the autumn, and the auction was not sufficiently advertised; nevertheless, with the world-wide reputation the Stone Park strains possess we should have anticipated under any circumstances higher prices than seem to have been realised. If auctions do not pay where nearly every surplus bird has a pedigree to back it up, we can hardly expect them to answer when amateurs and the less-known fanciers adopt them to clear out their yards.

Then we come to another kind of poultry auction sale—viz., a final break-up of any well-known yard, when every bird will be actually sold to the highest bidder, and the establishment is to be broken-up for good. Poultry tradition will ever hand us down as an example of such an auction the sale of Lady Holmesdale's birds at Linton Park. Many remember that day,

when lot after lot of the finest Dorkings ever bred went at the fall of Mr. Elijah Smith's hammer to new homes in distant counties. We suppose there are very few fanciers who have not heard of it. Mr. John Martin might well be proud of the birds he had bred as he heard the sums gradually rise higher and higher. Yet those were no days of exorbitant prices. Birds commanded a steady sale, but the reaction had not then set in, and we did not hear of the prices then which we weekly know birds have fetched and are fetching in 1874 and 1875. Nevertheless we would not recommend fanciers retiring from the poultry world to have such a sale. We would sooner advise them to imitate Mr. Beachy when he gave up his yard of White Cochins and the trustees of the late Mrs. Williamson, and sell their birds privately in one lot. It is better not to ask such a large sum, and so make a private sale a certainty, than run the risk and incur the trouble and expense of an auction sale, for such events as the Linton Park sale, where all the birds sold well, are but of rare occurrence.

Next we come to the regular sales of poultry which are in the present day the most fashionable. We allude to the periodical poultry auctions in London, Manchester, Liverpool, and many other large towns. We think when breeders and others have made up their minds to sell by auction it pays them much the best to send their birds at intervals to the nearest poultry sale. In many of the big cities sales are held fortnightly, and the auctioneers have a fixed tariff of charges, supply baskets, &c. But we do not call even these sales satisfactory to the vendors. We have seen lot after lot of really fair birds go for 8s. 6d. or 4s. 6d. each, for anything like a good price is but rarely obtained. The birds are often crowded up in these sale rooms, and penned in small baskets, consequently they never look at their best. Of course there are instances on record of individual birds obtaining good prices at these sales, but we think it is far from the rule. But were we obliged to sell by auction we should do so by means of some such sale. It would then be to our interest to advertise our birds as about to be sold in such an auction room, apart from the general advertisement of the auctioneer; and we should naturally choose a date in November or December, when the young birds would be matured and the adults in bright feather.

We are of opinion that at the root of the evil is the fact that so many inferior birds are sent to the auction sales, birds which really are only fit to put into a pie. Faulty and badly-marked chickens are not half killed off enough in their early youth. We went the other day to one of our most successful exhibitors' yards, and the higgler had actually just bought of him eighty pure-bred well-marked birds, their faults being quite of a minor kind. That is the way to do well. Kill off the most inferior specimens, and devote more time, and food, and space to the remainder, and we shall then find the prices of ordinary specimens at auction salerooms and everywhere else much better, and much more faith put in the quality and breeding of the birds found there. We are quite sure too many poor specimens are allowed to live, and hence we find the wretched rubbish we do at these general auction sales. Good birds can always fetch a good price, and we are certain expenses would be made to meet much more easily if the chicken ranks were only thinned in good time—as soon as ever the bad can be discerned from the good, for then the extra care the remainder would receive at the hands of the attendants would make them finer birds, and more valuable for whatever purpose they are to be devoted to; for, quoting a gentleman who sold his eighty chickens for killing purposes in one lot and had 2s. 9d. each for them, it paid him much better to sell them so and to get rid of them entirely out of the chicken world, than to send them to an auction where he would perhaps obtain 6s. or 7s. each and have to pay for carriage and railway journey of the attendant, besides the auctioneer's fees. And once more: The trade in prize poultry is much weakened by the broadcast dispersal of inferior specimens throughout the various poultry yards in the country, for they, in their turn, producing even less worthy specimens, actually choke the fancy with mere rubbish.—W.

### SECRETARIAL SHORTCOMINGS.

I WISH secretaries could be induced to pay more attention to the despatch of catalogues. I mention a recent instance of carelessness which is not, I am afraid, singular.

When I sent my entry fees to Nottingham I sent at the same time the money for a catalogue; thinking it not improbable that the Secretary might forget that I had done so, I wrote to remind him of it when I sent off the birds. No catalogue came, and I wrote again, and with the same result.

Secretaries might with advantage recollect that exhibitors are apt to apply the proverb, "A feather shows which way the wind blows," and that they are not likely to trust their birds to shows where inattention seems to be the rule.—F. G. DUTTON.

GREAT NATIONAL POULTRY SHOW, CRYSTAL PALACE.—We understand that one of the cups in the special classes for

members of a Columbian Society, &c., has been presented by Mr. R. Fulton. As it is especially intended for amateurs he has signified his intention of not competing in the class.

### THE OXFORD POULTRY SCHEDULE.

I VANTURN to think that one class does not receive fair play at the hands of the Committee. I allude to the class for Sebrights, in which the first prize is only £1 10s., and the second 15s., whilst in most other classes there are three prizes of £3 8s., £1, and 10s., and in none is the first less than £2 2s. Even the Selling class for Bantams any variety has a better prize offered. This seems to me, as an interested individual, a slight upon this new favourite breed, and the only blot on an otherwise liberal prize list. I trust the Committee will do something to put us exhibitors of Sebrights on an equal footing with others.—JAMES W. LLOYD.

### CRYSTAL PALACE POULTRY SHOW.

THE little volume of the "Great National" has again come to hand, and the contents are indeed startling. The rules and regulations come among its first pages, and we find most of them *in statu quo*—so much so that there is nothing new to say of them, for these worthy people will not even allow the use of double baskets. We have so lately urged the advantages of this arrangement in these pages that we will say no more here; and only hope that the authorities will realise, before it is too late, the advantage it will be to them to alter this rule as their rival sister did after her schedules were issued.

Next we come to the Judges, and a goodly muster they make, for we read who the gentlemen are to be, and they comprise nearly all that exist of any note. The names might have been omitted for all the good they do, as exhibitors will have no knowledge as to which of the gentlemen is to award the prizes for the various classes. Had the Committee said Mr. So-and-so will take the Dorkings, and Mr. So-and-so the Brahmas, and so on, we should say the National had indeed set the ball rolling in the way it should go. Entries close on the 18th inst.

We next come to the cups. Forty-five pieces of plate, or equivalent in money value, will be given among the poultry classes, beginning with one value £21 for the best pen in the whole Show. This is with a vengeance returning to the valuable champion cups which we advocated a few weeks ago. £350 is spent in cups alone on the poultry department, which must make this Show more gigantic than ever. Wherever will Mr. Billett procure his pens from?

Dorkings come first on the list. We find thirteen classes with forty-five prizes among them. White Cochins come off as well, but we think Black Cochin cocks and hens should have been divided. From the fine show of Black chickens at this Exhibition last year we must all know there will be lots of good old birds about this season, and we think they should have consequently partaken of like favours as White and Cuckoo Dorkings, which are now divided as to sexes in this Society's schedule for the first time. Brahmas, too, are well cared for. A new feature is a class for mottled-breasted cockerels, so we conclude the former class is for Black-breasted birds only, though the schedule does not state this. We only mention it, knowing from experience how many fall into these little mistakes, and are consequently greatly disappointed afterwards.

The other classes are well arranged and classified, but most assuredly Malays should have had two classes. We had hoped we should find one for Whites or Piles, but if this was too much to expect we did trust to find a class for gentlemen as well as one for the ladies. Polish, Leghorns, Silkies, and Andalusians all have classes and good prize money. We are glad the latter breed is provided for, and wish we could say the Minorcas were here able to do battle in a class to themselves, which we believe they would have filled right well.

Bantams have fourteen classes, nine of which are for Game. We shall expect to find a grand array. We are pleased to notice, too, a class for the quaint, old-fashioned, booted Bantams. Ducks are well seen to, but Calls have no class. Resent it, Call fanciers, for if you send four birds in class 116 against the ornamental waterfowl it will be only throwing money away. The Sale classes are legion, and we shall expect to find really good birds here, as we always do.

Pigeons are as nobly provided for as the poultry, forty cups of all values being distributed among the classes. The Draughts alone should make a show, for they have no less than fourteen classes. Jacobins, Fantails, Owls, and Turbits are all divided as to colours and should make a fine company. There is, as a finale, a class for the best collection of four pairs of not less than two varieties, and two classes for collections open to members of societies only.

We have made no mention of the special poultry classes, which seem to be causing so much excitement—viz., for untrimmed or unplucked specimens, as we prefer waiting to see what the results will be there, in the latter class especially, which is for all varieties not Game. But as we read in a con-



**ANY OTHER VARIETY OF BRITISH BIRDS.**—1 and 2, Cleminson & Ellerton (Starling and Thrush). 3, W. Warwick, Darlington (Thrush). *See*, W. & C. Barnard (Brambling).  
**Selling Class.**—1, G. & J. Mackley. 2, H. Brook. 3, Cleminson & Ellerton. *See*, J. Horn; J. Atherston; Cleminson & Ellerton. *See*, B. Pearson; T. Tenniwood; T. Jobling; Cleminson & Ellerton (3). *See*, J. Adams; W. Howard.  
**Judges.**—Mr. G. J. Barnesby, Derby; and Mr. R. L. Wallace, Berwick-on-Tweed.

### LIZARD CANARIES.—No. 8.

There is more difficulty in bringing a perfect-feathered and capped Lizard bird to the post in proper show trim than those of some other breeds. I know of no breed except the "London Fancy," where the loss of a wing or tail feather becomes such an eyesore to a judge of birds, and the owners likewise—those who love to see their birds not "out of feather." The grey tip that accompanies the end of a feather to supply the place of a lost one, tends to mar the regularity of feathers somewhat. In some, especially Silver birds, it is the most perceptible.

Mealy or Silver birds are generally inclined to be of a stouter build than Jonques or Golden specimens, otherwise there is very little difference except in the colour. As "Golden" is the recognised term by which the one kind is known, by this rule so ought they to be considered by those who have to adjudicate upon them, and who ought not to let their knowledge of a rich Golden-spangled specimen be led astray because a Golden or Jonque specimen (or, at least, one exhibited for such in a class), should happen to be as deep in colour of cap and lacing, or edging of spangles, as a deep pepper-coloured Norwich bird. A little carelessness in this respect, in what I may term mere surface judging, may have equally ill effects respecting good and inferior-bred Lizards as it may have upon Norwich birds. There are many nice points to guide one over Lizards. It is true that the deeper the colour of a Golden bird the more value it is, but when a bird presents a colour with the aid of pepper the reverse of golden I look upon the destruction of the colour as grave an error as when the proper rich golden tint is not fully attained. Of course, colour is but one point, although an important one, and a bird being highly coloured with pepper could not be cast aside if fully possessed with all other points. It should be the consideration of the whole, and the bird which gains the most points that should win.

The cap of a Lizard should be of good size, and oval in formation, extending from the dark beak to the back portion of the crown, where it should terminate somewhat square, neither to run or extend down the neck or at each side of the cap. On each side of the head the cap should reach the eye-lids, which should be dark. From the neck the spangles gradually increase in size until reaching the back, where they should be fully and very regularly developed. The legs, feet, and web, and stalks of wings and tail black. A good bold headpiece is much preferable to a narrow one, for then the cap of a bird appears to greater effect. The chief point is cap, then spangles. The following points will guide those having a fancy to breed and exhibit:—  
*Beak*, the darker the better.

*Head*, the crown should be flattish and wide with size throughout.

*Cap* should possess purity, rich colour, and magnitude of form with great regularity, coming to the beak in front, and to the back of the crown behind, and not lower than the eyebrow or lid, which should be dark.

*Neck*, short and thick, with small clear spangles, beginning at the back of the cap and gradually increasing in size towards the body.

*Back and spangles*, wide across the back, and clearly and thickly spangled, the boldest being in the centre, and the others gradually decreasing towards the sides and upper tail-coverts.

*Wings and tail* should be black, the bastard wing feathers particularly; the others (pinions) black in stalk and web, and fringed with golden or silvery white according to class.

*Throat and breast*, golden or silvery according to class, and regular throughout, the richer the golden the better.

*Chest and body*, the former wide, and the body of good size, the bolder the better.

*Legs and feet* black, and nails not twisted-awry.

*Feathers* very close, and not deficient or pied, with the underneath fine of the Golden-spangled a bluish black, and the fine of the Silver-spangled more of a dark grey. In the yellow portions of the Golden-spangled the richer the colour the better; and in the Silver-spangled the colour should be more like newly-cast virgin silver, especially in the cap. It is a fault, however, when a Silver bird approaches nearly midway to a Jonque, which they will do sometimes; such are likely to be disqualified, and very properly too, as an undecided-coloured bird is unworthy of a prize.—GEO. J. BARNESBY.

**SALE OF PRIZE FOWLS FROM LADY GWYDYR'S.**—The following are the prices realised for some of the best of Lady Gwydyr's birds recently sold at Norwich.—A splendid pair of Buff pullets were secured by Mr. H. Bryant of Whitton for 32s., and a fine

White Cochon adult cock was knocked down to the Hon. and Rev. F. De Grey for £1. Lot 41, a pair of valuable Cochon hens, after a keen competition were purchased by the same gentleman for £2 12s., and he also purchased a pair of milky-white Cochon pullets of pure extraction, and cheap at two guineas, the price given. Lot 84 a Dark Brahma cockerel and pullet was bought by Mr. Field for 19s. Lot 91 consisted of a handsome pair of freckled-plumaged pullets which went for 25s. to Mr. Bagshot. Lot 92, a pair similar in description, was bought by Mr. Lovely for 20s. Dr. Holden became the owner of two Light Brahma hens imported from America, for 11s.; and a pair of superior Dark Brahma cocks, noble-looking birds, went to Mr. Melton for 25s.

### EXHIBITING POUTERS.

THE schedule of the Kilmarnock Exhibition, which has just been issued, shows the usual liberality and enterprising spirit of the Committee. Year by year some improvement is effected for the benefit of exhibitors, which no doubt contributes to the swelling of the treasury.

I wish to call the attention of Pouter fanciers to an important addition in their classes, which may be overlooked or misunderstood. I refer to the new classes 47 and 48 in the schedule. It will be observed that the other classes are for standard-pied birds, while these latter bear the designation Any other Pouter. The intention is obvious. The words "standard pied" need not mislead anyone to the belief that they aim at strait-lacing in the matter of the pied marks. The utmost usually seen in that direction on a standard specimen is mere approximation; therefore no one need be deterred from entering any bird that has a chance of winning. The new classes are evidently intended for birds for which no other class is provided, as well as for those which, though possessing all the essential elements of a Pouter, are yet disqualified in some particular from competing in the standard classes. It is unfortunate that we are still in the dark as to what these disqualifications are, for though I raised the subject several months ago no reply was evoked.

I am perfectly certain that Mr. Huie, if he still holds his former opinions, will hail the innovation as a step in the right direction. It declares in a practical manner that the Pouter is a bird of shape, and supplies what he so urgently pleaded for—viz., an opportunity for the young and the poor fancier to obtain a small share of success and encouragement.—D. McVAUGHY, Kilmarnock.

### A RETROSPECT.

THOUGH the apirians of Great Britain have to lament an unfavourable season for bees, and therefore a poor harvest of honey, many of them are virtually enriched by another year's experience; and all know that experience is the best and most effective teacher. I am thankful that what little I know of bees and their management has been gained from experience and not from books. Indeed, I never read a book on bees till I began to write about them thirty-five years ago. Huber once said to a friend, "I am much more certain of what I state than you are, for you publish what your own eyes only have seen, while I take the mean among many witnesses." I am convinced that the intelligent readers of this Journal would trust and prefer the evidence of their own eyes to "the mean among many witnesses," for facts are more trustworthy than plausible guesses and opinions.

During the present season we have had recorded by Mr. Campbell another case of two fertile queens living together in a hive belonging to a neighbour of his. Mr. O. says the hive "was filled by a first swarm last year, and headed by a queen three years old. In May this year the owner discovered a young queen going abroad on her marriage flight; but as the bees often hatch a young queen when the reigning one begins to fail in her powers of reproduction, this circumstance was taken little notice of at the time. However, about four weeks after, the owner came to me and said that his young queen was a drone-breeder, filling the brood nest with young drones. I went to assist him to drive the bees and take out the objectionable queen. On driving we found the old one and young too. The old one was removed, and the young one with the bees returned to the hive. The drone-breeding was then discontinued. This is of very rare occurrence, as a young queen generally kills the old one as soon as she is hatched." On this phenomenon I shall make no comments at present, the object being to put the reader in possession of few facts and figures that have come before our notice.

One writer has stated recently that bees live only six weeks in summer, and that the young destroy the old bees and push them out of the hive. I am sorry that the statement has been made, for no statement could be much more incorrect. After a little more experience the writer, I think, will acknowledge his mistake. Bees live nine months, but many of them are worn out with hard work in summer, and lost in stormy and showery weather before they reach their allotted span. I have had a

swarm that worked well for three months in summer without breeding, and at the end of that time the bees seemed about as numerous as they did when they were hived. At the end of the season the bees were destroyed, and the combs (all virgin), were taken from the hive.

One other point in the natural history of bees should be noticed here—viz., the fact that the working bees assist their queens in the distribution and setting of eggs. I have seen instances of it in hundreds if not thousands of hives. During the present year another apiarian saw the bees in the act of removing eggs from one cell to another. The scepticism of many has now been scattered to the winds, and it is to be hoped that we shall hear no more of narrow slits between hives and supers being used to prevent breeding in the latter. If bees wish to breed in supers they will carry eggs into them. It is not narrow slits that keep bees from breeding in supers.

We now come to notice the season and harvest of 1875. The season has been more favourable in some districts than others, but taking the whole of Great Britain from the Land's End to John o'Groat's the season has been an unfavourable one for honey-gathering. In our own district, call it the Manchester one, we have had prevailing north winds and wet weather. Swarming, though earlier than last year, was rather later than is usual, but owing to unfavourable weather swarms had to be fed to keep them alive. Swarms that were not taken to the moors have had to be fed with syrup. Those that went to the moors laid up great stores of honey during the last fortnight of August. A few of the best swarms rose in weight to 80 and 90 lbs. each. The average weight of first swarms in modern straw hives would be about 70 lbs. each. Mr. Thorp of Sale took above £8 worth of honey and honeycomb, and sold two hives well filled for £4 from his two stock hives—in other words, £10 income from two hives. The bee-keepers at Carlisle in Lancashire (my native place), have to take second or third place this year. Not a swarm in the parish has reached 90 lbs. At the end of the clover season some of them were 50 to 60 lbs. each, only one 70 lbs., but owing to the weather being unfavourable they did not improve on the moors. Hitherto the Carlisle men have stood in the forefront with swarms ranging between 100 lbs. and 150 lbs. each, the accounts of which were sent annually to me by Mr. Robt. Reid, lately deceased. Mr. Henshilwood who has kindly sent me an account this year, and all the rest of the bee-keepers there, have sprung-up since I left Carlisle.

Last year the apiarians of Aberdeen and Banffshire were in the van of progress and success. This year two reports have been sent to me from that quarter, one by Mr. George Campbell, the other by Mr. James Shearer. Mr. Campbell considers "the present year the most unfavourable for bees, excepting 1845 and 1860, that he has experienced during a period of thirty-three years' practice amongst them." Last year he had two swarms that weighed 126 lbs. and 128 lbs. respectively. One he sold to a neighbour, but both of the hives were kept for stocks. The one he kept himself consumed 24 lbs. of honey during the winter months. It yielded a monster swarm of 9 lbs. on the 7th of June this year, which filled a hive 18 inches wide and 16 inches deep, but weighed only 81 lbs. at the end of the season. The first swarm from his neighbour's hive weighed 50 lbs. only. The bees of both are Ligurians.

Mr. Shearer of Cairnie, Aberdeenshire, has sent me his report, which is more satisfactory and comprehensive. He says, "The British bees have beaten decidedly the Ligurians this season in our quarter." "I believe," he says, "the season has not been very good, and our success must in great measure be attributed to good management. My first swarm, 6½ lbs. of bees, came off on the 25th of June. The weather thereafter continued so unpropitious that, to prevent starvation, I gave the swarm 7 lbs. of sugar. On the 1st of September it weighed 105 lbs. Another, which swarmed on the 28th of June, 5 lbs. of bees, had 5 lbs. of sugar and rose to 84 lbs. I had a stock hive which gathered 12 lbs. on the day before it swarmed, and 5 lbs. on the day previous, making 17 lbs. in two days. The average weight of my first swarms was 78 lbs. gross. Mr. Alex. Cockburn, Shenwell, had an artificial swarm on the 3rd of July which reached 142 lbs. on September 1st. A second and a third swarm came naturally from the same stock, showing that too many bees were not taken from it to make the first swarm. The skep of this swarm was 20 inches wide and 24 inches deep—one of Pettigrew's largest sizes, but it was not quite filled. The swarm received no assistance by feeding or otherwise, and the bees were the common variety. Mr. Robert Gordon, Mains, Gartley, in a note to me says he considers this has been a bad bee season. In some quarters his statement as to his last year's hive being 164 lbs. was not credited; he had his hives weighed as carefully as before, and in the presence of visitors. Natural swarming commenced on the 3rd of July (sixteen days later than last year), and ended on the 15th of July. His hives attained their greatest weights between the 17th and 24th of August. The weights include hives, ekes, and floorboards, which last year averaged 19 lbs.; this year, owing to greater size of hives, they average 17 lbs. The heaviest stock hive weighs 91 lbs., the lightest

65 lbs., average 76 lbs. 6 ozs. The heaviest swarm 144 lbs., lightest 88 lbs. 12 ozs., average 71 lbs. 2 ozs. The heaviest turn-out 99 lbs., the lightest 54 lbs., average 85 lbs. 6 ozs. Two of the turnouts gave swarms, the others were nadired. The 144 lb. hive was composed of (filled by) two swarms which united in the act of swarming. The unfavourable season will account for the deficiency of weights as compared with last year." Such is Mr. Shearer's report of bee-keeping this year in the neighbourhood of Huntley, Aberdeenshire.

Mr. George Fox of Kingsbridge, Devon, informs me by letter that his "Good honest black bees gave him a super this year which weighs 80 lbs. nett, and that Mr. Prout, ticket collector at Kingsbridge Road-station on the South Devon Railway, has taken a super 80 lbs. from a common straw hive." I have long considered Mr. Fox the most successful bee-keeper in the south of England, and a most honourable gentleman. I regret exceedingly that his super was disqualified (owing to its weight), at the late Crystal Palace Show. Mr. Fox naturally feels aggrieved, and informs me that "the super was honestly worked to the backbone," and hopes "the decision of the Judges is not final." He has received many expressions of sympathy, which tend to allay the irritation experienced in this matter. —A. PATTENAW.

## BEE HOUSES.—No. 2.

MIGRATING in 1853 to Tasmania I began bee-keeping anew. There my bees were kept in boxes on single stands in the open air, nor had I occasion to try bee houses during the four summers I spent in that beautiful island. The year 1858 found me once more settled in England. All that summer and autumn I was house-building, nor did I fail to make provision for a window apiary in a small room at the end of a projecting line of offices looking into the garden, which serves the purpose of a carpenter's workplace. Here I have a bench and tools of all sorts, with a convenient loft overhead for stowing away innumerable things. The one window in it is large enough to accommodate six colonies worked on the storifying principle in two rows. Each colony has a communication with the open air by a tunnel through the woodwork. The panes of glass in this window are darkened at pleasure, so that I can admit light into my tool house when I like, or shut it out whenever I have occasion to liberate bees from super or hive. In this case the door is open ajar, and the light attracts them thither, and my den is soon free of them. Besides this, which is called *par excellence* "the bee house," there is room for four more colonies on a couple of shelves in a fowl house, situated some 60 yards distant. These are managed precisely in the same way, except only that as the house is "weather-boarded," the communications with the outer air are out in the woodwork.

Requiring more room under shelter for my bees, I erected a shed three or four years ago in another part of my garden large enough to hold eight colonies. This is open to the air on every side, consisting only of uprights of oak and sleepers (under ground), with a roof affixed to a wall-plate, as in my old Herefordshire bee house. There are two shelves on which the hives rest, four in each row. As it is situated in the most sheltered part of my garden it generally escapes rain, but, it being quite open, the lower hives in particular often catch the drifting rain from the most exposed quarter.

On the whole, my experience leads me to give preference among all sheds and houses to what I have called my "window apiaries." These are really as faultless as any receptacles for housing bees can be, for here no enemies can attack them, and they are absolutely safe from damp and hurricane; and here are they most easily to be managed. No disturbance of one hive affects its neighbour so as to annoy the operator, and here feeding can be carried on to any extent without excitement in the apiary, and with the greatest comfort to the operator.

In my little book on "Profitable Bee-keeping," published by the S. P. C. K., and to be had at all its depôts, there is a woodcut of a simple shed for cottagers, to which I give the preference of all my other sheds and houses. It may be made of any length, and is very convenient, and gives good shelter, from its being low on the ground and well admitting of one row of hives.—B. & W.

## OUR LETTER BOX.

HAMBURGERS FOR EXHIBITION (B. M.).—If your birds are well grown, and have gone on without a check, you may show them, the more so that you probably have yet a month before you. You must choose them all with faultless feet. The hens should be bright coloured, and the penning should have a metallic lustre. Their hackles should be clear, and their tails as much pencilled as possible. Cocks and pullets must have good combs, quite firm on the head, full of points, with pike turning upwards behind. The cock's tail should be black, but each feather edged with gold. Choose birds of rich colour, as the washed-out hue has an air of poverty and does not recommend itself.

POULTRY WITH SCALY LEGS (H. W.).—The scaly legs you speak of are known as the poultry elephantiasis. It is quite a modern complaint and a great nuisance. At first it attacked only Cochins, but now Orpingtons



**Brahmas, and Game seem the only birds that do not suffer from it.** The only treatment we know is to keep the legs constantly moist, either with citron ointment or with sweet oil. It is very difficult of cure, and the sooner it is taken in hand the better.

**KEEPING GEESSE WITHOUT A GRASS RUN (S. E. L.).**—Your letter is hardly explicit enough. Do you mean to keep Geese with a view to fattening them, being bought at an age when their early troubles are over, or do you mean to keep them as stock, and to breed from them? If you wish to have them as Geese for the table, they may run in the yard you describe, and be put-up in a smaller space to fatten as they may be wanted. It is hardly possible to breed Geese profitably unless they can have a grass run; it is their natural baby's food. All Geese of every European breed want grass when young. Geese are generally largely bred in the vicinity of commons for this reason. If there be such places in your neighbourhood you will do better to buy goslings than to breed them. They are easily fattened on bran, oats, and meal. If you determine to keep Geese they must be liberally fed with grass cut in large sods and put in water, or on dry spots in a yard.

**HEATING POULTRY HOUSES (E. E.).**—We do not care to heat our poultry houses, nor would we have them heated if it were done gratis. If you differ from us we believe the best plan is to heat with hot water. The chill the birds experience when they leave their heated house for the cold outside atmosphere is very detrimental. We prefer to increase our food, and to give it of a more stimulating character, as scraps of all sorts of meat; feeding three or four times per day on soft food, and above all feeding the first thing in the morning at break of day, and the last thing at night. When snow is on the ground, either to feed on a spot that has been carefully and scrupulously cleansed of snow, or in their houses. Snow is to all birds a violent purgative. It must always be borne in mind that although poultry is somewhat artificially treated, yet it partakes to a certain extent of the nature of Game. Except in very long-continued snow or frosts we do not find Pheasants, Partridges, or Grouse affected by the weather, and their feeding is far more precarious than that of fowls. The latter are therefore better able to bear it than their wild brethren.

**SWANS (A Lady in Cheshire).**—It is often the case that Swans will not take to the water they are intended to adorn when there is other water near. Close observation will end by discovering the cause of the preference. There is a cause—either some weed of which they are fond, or a larger space of water, or more shelter. The rule with all animals when they are required to keep at home is to feed them so well that they have nothing to seek. They are then always full, they grow fat and lazy, and stay at home. It is seldom Swans walk as far as the space you mention, and if they are properly plumed they cannot fly. When they have the use of their wings they will at certain seasons of the year fly long distances from home. They generally return, but they sometimes meet with accidents.

**TRANSPORT OF POULTRY (J. C. H.).**—We are unable to give you the desired information, and advise you to write at once to the Secretary of the Show you name.

**PIGEON HOUSE (Constant Subscriber).**—The more room you can give the better for the birds. It is especially desirable to make a house lofty; it should also be light. In giving measurements we do not say the space is absolutely necessary, but, if you have it, it is desirable. We would make it 10 feet every way. A good flooring is made by putting down liquid tar and covering it with small sifted gravel; when cold another fine coat of tar and another coat of gravel. This makes a surface that will bear sweeping. For purposes of cleanliness the floor should be perfectly even, and for the same reason the sides of whatever material should be smooth. There should be no harbour for dust or vermin.

**LAME PIGEON (W. F. C.).**—We can only advise you to keep the bird by itself. The leg is probably injured in some way, and will most likely benefit from rest.

**SPOTS OF BLOOD IN A CANARY'S CAGE (Joe).**—The spots of blood in the bird's cage may be accounted for as follows:—Birds upwards of one year old at this particular season cast their quill feathers (wings and tails), and the tapping or injury to either would cause them to freely bleed. In an early stage of the feathers shooting forth they are heavily charged. On the other hand, the blood might have proceeded from the bird's claws, for they are likely to get trapped in a crevice, or become entangled in the wirework or the ends of the perches. If the quills and claws appear all right then we will suppose that the bird might have ruptured an artery, and to prevent becoming unfatigued with the blood in the throat would naturally shake its bill and bespatter the cage. In either case the bird may be thus treated: If the blood arises from the quills, remove the bird from others, and nature will speedily effect its own cure. If the claws have become injured bathe them in salt and water. If an artery has been ruptured let the patient be kept quiet, and not excited or hurried. In the bird's fountain put half a teaspoonful of brandy, and a piece of salt the size of a bean, give a cold bath, and until the bird recovers strength a little bread-and-milk diet. It is not an uncommon occurrence for Canaries to throw-up blood. Fright and sudden excitement is the cause, and fits often ensue. When approaching a cage to catch a bird it is always better to give it slight notice by familiarly chirping at it. Kind familiar treatment is essential to all animal life, and Canaries quickly appreciate it.

**WRIGHT OF COMB—COVERING HIVES (A Young Apianian).**—The late Baron Liebig, in the appendix to his work on "Animal Chemistry," says that "bees have to consume 20 lbs. of honey to make 1 lb. of wax, and 1 ox. of comb holds 1 lb. of honey." We have not tested the matter, and therefore cannot vouch for the accuracy of Liebig's assertions. The quilt and carpet arrangement for the tops of hives is ineffectual. We advise you to remove the old carpets from the crowns of your hives, and put something better in their places; you cannot easily find anything worse.

**DRIVING BEES (A Constant Reader).**—It is rather late in the season to form an apiary of large straw hives by feeding swarms put into them. You have succeeded admirably in colonizing three swarms in one large hive and causing them to build an abundance of comb. At this late season we think you would do well to let the bees remain as they are, and put the swarms next year into the large hives. But if you are determined to people another large hive, take the combs out one by one and sweep the bees off them with a hand brush into the large hive. This you can easily do either outdoors on a warm day or in the conservatory by candlelight. But to attempt to feed the bees afterwards in the conservatory would be risky. Thousands of them would probably be lost by flying against the glass.

**FLAKES OF WAX (A Novice).**—The wax dust which you gathered and sent for inspection is composed wholly of flakes of wax which ooze from the abdomens of bees while they are building combs. All swarms lose some of the flakes (which fall on the board), in the operation of comb-building. They do not pick-up or use what falls from them in this work. Your hive is quite healthy, and if it contains 12 or 15 lbs. of food now, and is well covered, it will live through the winter.

**QUINCE MARMALADE (J. F.).**—Gather the fruit when fully ripe, and of a fine yellow; pare, quarter, and core it; put the quinces into a saucepan with a little water, and set them on the fire until they are quite soft; then take them out, and lay them on a sieve to drain; rub them through and weigh the pulp; boil an equal quantity of sugar to *petite case*, then add the pulp, and stir them together over the fire until it will fall from the spoon like a jelly. The marmalade is then fit to be put into pots, and when cold cover them closely.

**QUINCES, COMPOTE OF (W. G.).**—Take six quinces, cut them in halves, and core them; scald and pare them neatly. Put some clear syrup into a preserving-pan, with the juice of a lemon; when hot add the quinces, and give them a boil together; drain the fruit, arrange it in the compotier, leave the syrup to thicken a little, and pour it over the quinces.

## METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.				IN THE DAY.						Rain.
1875.	Oct.	Barom. at Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
			Dry.	Wet.			Max.	Min.	In sun.	On grass.		
We. 6		inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
Th. 7		30.434	55.0	49.0	W.	58.1	63.1	45.1	107.5	42.6	—	
Fri. 8		30.593	56.1	51.0	W.	54.3	64.1	44.0	105.6	42.2	—	
Sat. 9		30.188	57.3	54.3	S.	56.8	68.1	58.1	101.1	55.2	—	
Sun. 10		29.680	54.6	51.6	W.	54.6	59.7	49.7	81.8	48.5	0.145	
Mo. 11		29.949	48.3	44.4	W.	52.0	57.8	39.1	94.8	37.0	0.219	
Tu. 12		29.222	51.1	48.5	W.	51.3	56.3	46.3	101.0	45.3	0.050	
Co. 13		29.382	50.2	46.0	W.	51.0	55.5	44.0	95.0	35.0	—	
Means		29.891	51.3	48.0		53.6	63.1	44.5	97.7	43.5	1.412	

## REMARKS.

- 6th.—Fine all day; at times very bright.  
 7th.—A very fine day throughout.  
 8th.—Hazy early, but a fine day afterwards, though there were a few drops of rain at noon.  
 9th.—Fine till noon; after that time rather showery, the wind rising and being at times very high; and great fall in temperature.  
 10th.—Fine till 5 P.M., then showery at times; the fall was heavy, especially about midnight.  
 11th.—Fine morning; a sudden and very short thunderstorm at 10.55 A.M., the sun shining quite brightly when it commenced, and though dark for a short time soon clearing off.  
 12th.—A very fine day but cold, though there was not much wind.  
 Rapid fall of temperature at the end of the week, with what is a very unusual accompaniment—viz., low barometer and west wind.—G. J. SYMONS.

## COVENT GARDEN MARKET.—OCTOBER 13.

No alteration in prices this week. Peaches and Grapes from Holland have been arriving in very good condition, also Pears from France, consisting of Duchesse d'Angoulême, and Glou Morceau. Cobs have been in good demand at slightly better prices.

## FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.	
Apples.....	1	0	1	0	Mulberries.....	lb.	8	6	1	0
Apricots.....	dozen	0	0	0	Nectarines.....	dozen	8	0	8	0
Cherries.....	lb.	0	0	0	Oranges.....	100	13	0	30	8
Chestnuts.....	bushel	0	0	0	Peaches.....	dozen	8	0	13	0
Currants.....	1	0	0	0	Pears, kitchen.....	dozen	0	0	0	0
Black.....	do.	0	0	0	Pears, dessert.....	dozen	0	0	0	0
Figs.....	dozen	0	6	2	Pine Apples.....	lb.	3	0	6	0
Filberts.....	lb.	0	5	0	Plums.....	1	0	3	6	0
Gobs.....	lb.	0	5	0	Quinces.....	dozen	0	0	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	0	0	0
Grapes, hothouse.....	lb.	1	0	0	Strawberries.....	lb.	0	0	0	0
Lemons.....	100	8	0	13	Walnuts.....	bushel	8	0	13	0
Melons.....	each	1	0	0	ditto.....	100	1	0	1	6

## VEGETABLES.

		s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	6	0	Leeks.....	bunch	0	4	0
Asparagus.....	100	0	0	0	0	Lettuce.....	dozen	0	5	1
French.....	bundle	0	0	0	0	Mushrooms.....	pot	2	0	0
Beans, Kidney.....	1	0	2	0	0	Mustard & Cress.....	punnet	0	2	0
Broad.....	1	0	0	0	0	Onions.....	bushel	2	0	0
Beet, Red.....	dozen	2	0	4	0	Pickling.....	quart	0	6	0
Broccoli.....	bundle	0	0	0	0	Parley.....	doz. bunches	2	0	4
Brussels Sprouts.....	1	0	0	0	0	Parsnips.....	dozen	0	0	0
Cabbage.....	dozen	0	0	0	0	Peas.....	quart	1	0	1
Carrots.....	bunch	0	5	0	0	Potatoes.....	bushel	2	6	2
Capiculus.....	100	1	6	2	0	Kidney.....	do.	3	0	6
Cauliflower.....	dozen	2	0	0	0	Radishes.....	doz. bunches	1	0	1
Celery.....	bundle	1	6	2	0	Rhubarb.....	bundle	0	0	0
Coleworts.....	doz. bunches	2	0	4	0	Salsify.....	bundle	1	6	0
Cucumbers.....	each	0	8	0	0	Scorzonera.....	bundle	1	0	0
Endive.....	dozen	1	0	2	0	Seakale.....	basket	0	0	0
Fennel.....	bunch	0	3	0	0	Shallots.....	lb.	0	8	0
Garlic.....	lb.	0	6	0	0	Spinach.....	bushel	3	0	0
Herbs.....	bunch	0	8	0	0	Tomatoes.....	dozen	2	0	0
Horseradish.....	bundle	4	0	0	0	Turnips.....	bunch	0	4	6
						Vegetable Marrows.....	doz.	1	0	2



## WEEKLY CALENDAR.

Day of Month.	Day of Week.	OCTOBER 21-27, 1878.	Average Temperature near London.	Sun. Moon.	Sun. Sets.	Moon. Rises.	Moon. Sets.	Moon's Age.	Clock after Sun.	Day of Year.
21	Tu	Sale of Mr. Dal's new plants at 25, King Street, Covent Garden.	Day. 50.4	m. h.	m. h.	m. h.	m. h.	Days.	h. m.	204
22	W		50.9	56 of 4	51 of 4	5 of 10	50 of 2	1	15 17	205
23	Th	Robert Fish died, 1878.	50.9	56 of 4	51 of 4	5 of 10	50 of 2	2	15 20	206
24	F	24 Sunday after Trinity.	50.8	56 of 4	51 of 4	5 of 10	50 of 2	3	15 23	207
25	Sa	Twilight ends at 6.25 P.M.	50.8	56 of 4	51 of 4	5 of 10	50 of 2	4	15 26	208
26	Su		50.6	56 of 4	51 of 4	5 of 10	50 of 2	5	15 29	209
27	Mo	J. Stuart born, 1762.	50.1	56 of 4	51 of 4	5 of 10	50 of 2	6	15 32	210

From observations taken near London during forty-three years, the average day temperature of the week is 50.5°; and its night temperature 50.2°.

## SOIL AND CLIMATE IN RELATION TO PRACTICE.



**D**oubt the nature and condition of the soil must exercise a material influence upon the climate; apart from this, the treatment of soil for all purposes of cultivation is a matter of such prime importance that a clear understanding of the matter in its relation to ordinary practice is most desirable. I have already in former papers told something of my struggles in bringing what I have termed the worst soil in England into a suitable condition for vegetable culture, and I shall have something to say further on about what has been done to it for fruit-culture, but before doing so I wish to say a little about what Mr. Taylor has told us of the soil at Longleat. Evidently it is abundantly fertile, but then its mechanical condition is about as bad as can be, and I should much like to know what has been done, or what it is intended to do, to ameliorate its crudity.

In Mr. Taylor's first paper, on page 197, he states that "the soil is extremely cold and heavy, the atmosphere humid, and frost visits us every month of the year;" and on page 285 he states that the "soil is almost too heavy to be called a soil at all; it is clay, and such heavy clay too that if it lies a year or two unmoved it is almost impervious to air, and becomes, consequently, sour." Thus, then, we have very clearly set before us an evil, but we have no statement of a remedy, which impresses one as being so highly important and necessary. What else, I ask, could be expected to prevail where there is such a cold, heavy, sodden, inert soil, but a still colder and most humid atmosphere, leading to frequent frosts? I have not seen Mr. Taylor's garden, but judging solely from his own statements I am forced to the conclusion that he is either unaware of what a radical change may be effected in such a soil by the action of fire, or that he is prevented by circumstances from applying the remedy. Burnt clay and a thorough system of drainage would surely effect a marvellous change in this cold heavy soil. Certainly if so treated it never could afterwards settle into an inert mass or become waterlogged. Mr. Taylor questions whether the condition of the trees at Oldlands is entirely owing to cultural skill. Certainly not. Let me, however, state clearly the original condition of the soil, its preparation for the trees, and its subsequent management, together with that of the trees; it being evident from the numerous communications on the subject which have reached me that many Journal readers are anxious for further information on this subject. But let them not fail to remember that each case must be treated solely on its own merits, and that if I had to make a garden in another place there would be no line-and-rule work—no slavish following of former plans, but rather such an adaptation of means, such a mode of culture, as the circumstances of situation, soil, and climate appeared in my judgment to require.

The virgin soil here is a very poor thin loam, containing such an unusually large per-centage of silicious sand that a heavy shower will beat it into a compact mass, drying

into such hard clods that they have frequently to be softened with water before they can be broken up. The subsoil is a mixture of marl, clay, and silicious sand of a heavy close texture, and so adhesive as to form a puddle for pond bays nearly equal to that of pure clay, altogether forming about as unsuitable a staple for fruit-culture as could be found; so thoroughly was I convinced of this, that as the station holes (6 feet square by 8 feet deep) were excavated the entire mass of material taken out was carted away to help to form a viaduct then in course of construction.

Now, to fill the holes with good soil and to plant the trees might appear a very simple matter, but in reality it was not quite so simple. The entire future of the trees depended so much upon how this was done that results had to be carefully considered, the first shower showing plainly that without an outlet for water the holes would soon prove just so many death-traps to the roots. A row of common 2-inch drain-pipes was therefore put across the bottom of each hole under a layer of 6 inches of rough stones and connected with the garden drains, which had previously been made 4 feet deep and 80 feet apart; the remainder of the holes being filled with turfy loam brought from a distance, a little manure stirred in with the upper portion, the trees planted, and the surface mulched with a little fern. Thus, then, the trees were ready for a start, but for a start only, and not for a prolonged existence without future attention to the soil. It was calculated that the trees would require about three years to attain sufficient vigour and maturity for producing really good fruit, that the stations would afford sufficient nutriment for this, and that by then the soil surrounding the stations would be sufficiently improved by culture to afford an additional food-supply for the roots. The calculation was a correct one. Trenching, repeated dressings of manure, wood ashes and gritty matter, such as coal ash and shattered brick, have converted the once-crude substance into an excellent rich and fertile soil, into which the roots have spread with a rapidity that is admirably in keeping with a vigorous wood-growth. During the present year sewage has been given frequently, especially while the fruit was swelling, and also after it was gathered, to impart full vigour to the fruiting wood of next year.

Thus much for the culture of the roots. Now for that of the branches, which were pruned according to strength to lengths of 12 to 20 inches at the time of planting. The first season's growth was trained upwards at rather an acute angle, so as to impart as much vigour as possible; only the breastwood being pruned away as it appeared. The winter pruning consisted in slightly shortening the leading shoots and thinning and shortening the side growths, taking care to leave the lowest shoots longer than the others. Subsequent pruning may be briefly described as consisting of thinning any growths immediately a probability of crowding was perceptible, occasionally entirely cutting away a too rampant shoot in the centre of a tree, or if good wood was wanted there to obtain it during the growing season by pinching off the top of one or two of the strongest shoots, and causing

them to put forth the requisite number of laterals. To maintain as true a balance as possible the laterals—really the fruiting wood—are left on the upper side of the lower, and on the under side of the upper branches.

No immunity from blight or disease can be claimed even for trees vigorous as these are, but it is certainly reduced to a minimum. Curled and blistered foliage, caused by cold cutting winds or the attacks of aphides, has been more or less prevalent every year during the earlier months when the growth is young and tender, and red spider comes later if the weather prove very hot and dry when the fruit is ripening. No harm can arise from such attacks if they are only met with promptitude and care. Plenty of clean water upon the foliage and branches, and screening from frost and the direct force of east winds, is all that a vigorous tree requires.

The mean monthly temperature of this part of Sussex will certainly bear favourable comparison with that of Greenwich, and after calmly reviewing the matter I am inclined to agree with Mr. Taylor that the climate is really not so bad as was supposed. There is, however, a peculiarity about it which adds materially to the difficulty of ripening the wood, which is that in the present month there is a mean decrease of 7° of temperature—there have been instances of its falling as much as 13° from that of September—and this decline is accompanied by very wet dull weather, the rainfall of October exceeding that of any other month.

I may add that the gardeners of this county cannot have much faith in the climate as being suitable for Peach-culture, for I have found Peach houses and glass casings to Peach walls in almost every garden that I have visited.—EDWARD LUCKHURST.

## PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 5.

**GLADIOLUS.**—Invaluable for vases and for specimens in glasses are spikes of Gladioli, every bud in the spike developing when placed in water. Their season of flowering is a long one, commencing in June and continuing until the late autumn months. The earliest may be *G. blandus*, *G. communis*, vars. *albus*, *roseus*, and *ruber*; *G. byzantinus*, *G. Colvilli albus*, *G. cardinalis* and its variety *roseus*, and *G. insignis* are all of the early-flowering class, and succeed admirably planted in October in any rich light soil, well drained, doing remarkably well in peaty or vegetable soil, increasing amazingly, and once planted not needing any attention, never taking the "yellows" as the highly-bred varieties of both *ramosus* and *gandavensis*. They do well in the open spaces in the front lines of shrubberies, and planted half a dozen or more together, they being planted 4 inches deep, will give annually in June and July nice spikes of flowers for cutting. The clumps increase in size and beauty from year to year. *G. ramosus* in its many varieties is more tender by the continued improvement of the hybridist, and this section coming in after the *G. communis* and other kinds named should be planted extensively, for though the *ramosus* section have not the stateliness of the *gandavensis*, they are equally bright and varied in colour. Plant in November and again in February 4 inches deep, and mulch over the surface with about an inch thickness of partially decayed leaves or other refuse of a light protective description. Wet, however, is the great evil, and the ground should be well drained, and if grown in beds protection may be given from heavy rains and severe frost. The bulbs may be 6 inches apart and the rows 9 inches, which will be sufficient space for this section. A top-dressing of manure in spring, cow dung being best, will add to their vigour, applying it after the stems rise, and being careful to stake as the stems advance in growth, and applying liquid manure after the flower buds appear.

*G. gandavensis* hybrids.—These are magnificent for late summer and autumn, planting during the first mild weather in March 3 inches deep and a foot apart every way. The ground for them to be trenched and manured very liberally, mixing the manure with the soil, and in a thoroughly decomposed state by planting time. Planted after the middle of March, and at monthly intervals to the middle of May, we may look forward to a good stock of spikes of matchless beauty for cutting in late summer and autumn. The varieties are very numerous both of *gandavensis* and *ramosus*, so that I shall not pester your readers with names, which may be taken from the list at the price suited to each purchaser. For very late flowers plant in June with a certainty of a speedy loss of bulbs. Bulbs of the *ramosus* section, if potted in November, three in

a 6-inch and five in a 7-inch pot, an inch deep, and plunged in a cold pit, removing to a greenhouse when the spike rises, will flower six weeks earlier than those outdoors, and some being left in the cold pit will succeed them and continue the display until those in the open ground bloom. If very early bloom be wanted it is better to pot some of the *G. blandus*, *communis*, or other of the early-flowering sorts, in October; these gently brought forward after Christmas will flower in May or earlier. *Gandavensis* varieties are also grown in pots, but not for our purpose, except it be a late batch, put in in June and kept plunged in ashes outdoors and well supplied with water, giving them the shelter of a cold pit or cold house in autumn. Two parts medium-textured turfy loam, with a part old cow dung and a half part of sand, will grow Gladioli in pots perfectly, but I have a hankering after peat—sandy fibrous peat. All the species like it, and in it never, that I know, have the "yellows."

**PANCRATIUM SPECIOSUM** has large white fragrant flowers during the spring or early summer months, and is quite equal to the famous *Eucharis amazonica*, having usually eight flowers in a scape. *P. Caribæum* has also large white fragrant flowers, both being stove plants requiring abundant supplies of water when growing, and continued until the growth is complete or full-sized, and then gradually reducing, giving only sufficient to keep them from flagging, and not allowing them to be dry at any time. Good turfy loam three parts, one part each sandy peat, old cow dung, and silver sand with good drainage will grow the plants well.

*P. Cunninghamii* has campanulate white flowers about an inch wide, and for button-holes superior to the *Eucharis*. It requires a warm greenhouse, and the plants should be well watered during growth, and not dried-off when at rest.

*P. illyricum* and *P. maritum* have both white flowers, and are hardy in sheltered positions, and a little protection in severe weather. A well-drained soil is essential, and equally so is abundant watering during growth. Not the least charms of *Pancratiums* are the delicate green stripes which pervade their pearly white flowers, and their scent. They are easily cultivated and free-flowering, and are deserving of extended culture, especially *P. speciosum*, also *P. mexicanum* (notatum), which has often a dozen flowers of snowy whiteness on a scape, the flowers being very fragrant. It is a stove species, though both the two last-named will do in a warm greenhouse.

**AMARYLLIS** and **HIPPEASTRUM** are magnificent as cut flowers, but we confound the one genus with the other. The true *Amaryllis* is characterised by flowering before the leaves, and is as thoroughly deciduous as the extremely beautiful *Amaryllis Belladonna*, which is one of the most beautiful of hardy bulbs, and on which a very opportune and excellent article was given by "W." at page 183 of the present volume, to which the reader is referred for particulars of treatment. The *Belladonna* Lily is the true type of an *Amaryllis*, and would be immensely improved were it induced to produce its flowers and leaves simultaneously. There is no affinity between the *Hippeastrum* and *Amaryllis*, hence it has been suggested by some to gain foliage for the *Amaryllis* at the time of flowering by crossing with *Valloia*, but the hybridisation cannot be effected.

*Hippeastrums* in their original types are evergreen, of which none are more representative than the very beautiful *H. pardinum*, one of the many beautiful plants brought to notice through the Messrs. Veitch; but the *Hippeastrum* has been crossed this way and that, and so thoroughly subdued by a continued system of drying culture as to become every whit as leafless as the *Amaryllis* in the resting season, and in this respect at least the alteration has been of a retrogressive kind. *Hippeastrum* and *Amaryllis* are the most magnificent of all bulbous plants, their immense trumpet-shaped flowers being truly grand in a cut state. They flower usually during the early summer months, but may be retarded or forwarded by keeping cool and dry, or starting in bottom heat with a brisk heat and moist atmosphere.

*Hippeastrum pardinum* is a fine cream colour, closely dotted with crimson-red. It is strictly evergreen, and should not be dried-off; *H. equestris* major, orange and green star, is also a true type of *Hippeastrum*, the double form *H. equestris* being novel; *H. Alberti* flore-pleno is very double and a fine orange-scarlet; *H. cinnamomea*, rose, is sweet-scented; *H. Ackermannii*, and its variety *pulcherrima*, being really grand, having large crimson-scarlet flowers very finely marked; *Aulica platypetala* is red tipped with green with yellow stripe. This is one of the best for forcing, and may be had readily in winter by affording heat and moisture after

a period of rest; and of the same free-blooming character is *H. marginata* conspicua, and its variety *superba*, both with white grounds and crimson stripes, and are of the finest, especially for early flowering. The finest of all for early or winter blooming is *H. robustum*. *H. regina*, deep red, is fine from its orange and white marking; *reticulata striatifolia* is good either as a flowering plant or for its leaves, which have a clear white band down the centre, and these have a grand effect interspersed with *Amaryllis* blooms for the table, for no flower has given it so fine a setting as its own foliage. Prince of Orange, Graveana, crocea grandiflora, and Cleopatra are useful and much alike; but of late there has been some grand additions, and these have, of course, "fancy" values.

The above are all stove plants. They will succeed, it is true, if they are started in a hotbed and continued there until far advanced for flowering, and then removed to a warm greenhouse, or a house where forcing is carried on. A warm greenhouse is only another name for a cool stove. I am told the *H. vittata* and varieties may be grown planted at the foot of a south wall, protected with litter in severe weather. It would be interesting to know if this has been practised in England and where.

If dry pot the bulbs in fibrous yellow loam three parts, one part each leaf soil and old cow dung, and a sixth of sand, and good drainage. This may be done in January, and the pots should be placed in a light position without water until the bulbs begin to grow—the scapes appearing first or simultaneously with the leaves—water then should be gradually given, increasing the supply with the growth. If the pots are placed in a bottom heat of 70° to 75° it will facilitate the growth of roots, and is a desirable method of treating bulbs which have been dried. The temperature should not be less from fire heat than 55° at night and 60° day, and 15° rise from sun heat; but the usual stove temperature after January—i.e., 65° to 60° night, 70° to 75° day, and higher in bright weather is more suitable; in fact, stove treatment is necessary, and if this be not afforded start the plants in a hotbed, removing them to a warm greenhouse when advanced for flowering. After flowering keep them well but not overwatered, and in all their stages they require to be near the glass and have all the light practicable with moderate ventilation. In June, especially if the plants cannot be kept near the glass, they may, the flowering being over, be placed in a cold pit, and that will be a stove by early closing and admitting air judiciously. In this position the plants will be the better from gentle showers, and by the middle of August they will need maturing treatment, water to be given only to prevent flagging, removing early in September to shelves in the stove, where they will speedily mature. No water then to be given, the moisture of the house will be ample to prevent flagging of the foliage. If the leaves die-off, as the present race do, a light damping of the pots occasionally from a syringe will prevent loss of roots, and if these are maintained sound there is no need of bottom heat at starting; but if the roots are lost from overdrying the bottom heat is a necessity for speedy rooting and vigorous flowering. The most favourable time to repot is when the maximum of growth is reached, taking care not to break the ball, picking-out the soil from amongst the roots, removing the surface, and placing fresh soil at the bottom of the pots, the plants then may be returned, with some fresh soil all around, pressing it firmly. A good watering to follow the potting, and gentle sprinkling overhead two or three times a-day, with a close atmosphere, and slight shade if the weather be bright will enable the plants speedily to recover the potting, and plants so treated will give flowers very superior. Shade is not needed for these plants, except those of weak growth, which cannot stand the sun, and such should have slight shade, and a warmer and moister atmosphere. —G. ARNEY.

### CARRION FOR VINE BORDERS.

THE other morning my employer came to me and said, "We have a cow dead, and I want it buried in the Vine border. Is it not a good thing for the Vine roots? A gardener told me that it was, and that Vine roots would go half a mile to it." I gave him, as my reason for objecting, my opinion that Vine roots do not readily penetrate a mass of putrid matter, if they penetrate it at all, and that it is an unnatural element for Vine roots; but still, I added, "the place is yours, not mine, and I will obey your orders." "No," said he, "your reasoning is conclusive, and I give up my theory to your practice."

I know that years ago there was much said in some quarters in favour of carrion for Vines to luxuriate in, but I never believed in it, nor do I now, but I would ask whether you think I am right or wrong in the matter. I am open to conviction, and if you choose to lay the matter before the readers of "our Journal" I should esteem it a favour to have the opinion of any of our practical men through the medium of its columns, as Grape-growing is well to the front at the present time.—INQUIRER.

### GRAPES AT THE EDINBURGH SHOW.

I HAVE been very much interested in reading the discussion respecting the merits of the two large bunches of Grapes which were exhibited at the Edinburgh Show. Mr. Dickson's letter clears up matters considerably, and explains why his bunch appeared tarnished. It certainly does seem very strange that Mr. Dickson should have been excluded while so many others were allowed to witness the process of weighing; and the feelings of Mr. Dickson may more easily be imagined than described when he saw the bunch of Grapes which had cost him so many months of anxious care defeated almost beyond recognition, and that before the public had an opportunity of inspecting his production. I consider Mr. Dickson is entitled to the sympathy of all lovers of fair play.

I trust the suggestion of your able correspondent, "J. W.," in his description of Arkleton, that some token of respect for such distinguished ability would be fittingly bestowed upon the man who has accomplished such wonders in Grape-growing may not be allowed to lie dormant, but that a committee may be appointed to carry out the project, and to whom I will gladly give my mite.

With respect to Mr. Dickson's query, What constitutes a bunch of Grapes? my own opinion is that a bunch of Grapes must proceed from one stem, and that two or more stems proceeding from a Vine shoot, however close together, must be considered as two or more bunches of Grapes.—A. K.

As an outsider in the discussion going on of weighty Grapes you will, perhaps, allow me to suggest that in future it would be wise to give permission to exhibitors of weighty Grapes to assist and scrutinise at the weighing. If this were allowed, and a set time appointed for its performance with the Judges by the Secretary, much annoyance, heart-burnings, and misunderstanding would be prevented.—HENRY KNIGHT, Floors.

AFTER what has been stated it is incumbent on the managers of the late Show to state officially whether the Judges carefully examined the bunches before weighing them, and were cognisant of the particular formation of each bunch before they awarded the prize? If the awards were made after examination, and with a full knowledge of the state of each bunch, then the matter is settled so far as regards this Show. But if this examination was not made, and any peculiarities were from any cause overlooked, then it is beyond all doubt the duty of the Committee to thoroughly investigate the case. This may be unpleasant, but it is nevertheless a duty, and on that account they must do it, both for the honour of Edinburgh and in deference to the opinion of a world of Grape-growers. I write not as a partisan. I care not who obtains the prize, but I do care to know if the bunches of Grapes which have recently startled the world are really what we expect them to be—viz., fair single bunches, and not accidental monstrosities.

Mr. Dickson has plainly told us that Mr. Currer's bunch was "two bunches," and states that he holds testimony to that effect. I ask him to produce that testimony.—AN ENGLISH GRAPE-GROWER.

HAS not the time come when the question as to what is a bunch of Grapes should be authoritatively settled? Surely this should no longer be an undecided question, and yet it is a question—though apparently simple—not easy to answer. One good Grape-grower and judge says, "A bunch to be beyond dispute (and this he considers a vital point) should have a smooth and perfectly round stem, showing no signs of a cicatrix such as the union of two bunches might be expected to show, whether caused naturally or artificially." Another says, "Provided a bunch comes from a single eye, no matter what the form of its stem, it is one bunch and one only." Now which of these two definitions is right? There is this to be said on the part of the former—that it cannot be wrong. As is well known, a cane will burst two eyes, and the stems and

bunches become naturally united, forming a fasciated stem and bunch. In that case is it more than one bunch? Thus simple as the question at first sight may appear, it is when examined rather subtle, but none the less for that should it rest undetermined.

Huge bunches of Grapes seem to be yearly increasing in size, and I submit, therefore, that the simple question of what constitutes one bunch of Grapes should be finally and authoritatively settled. I have not either the slightest interest in the bunches lately exhibited, or the remotest feeling as to which is successful, but I should, in common with those of my craft generally, like to know what is the standard for judging "a bunch of Grapes."—A NORTH-OF-ENGLAND GARDENER.

Most of the Grape-growers in the country are anxiously waiting your version of what constitutes a bunch of Grapes. I myself, an old Grape-grower, for one, will be much disappointed if I find your version to be that we are to pass a bunch as one bunch with two separate fruit stems from the main or side shoot. I have been acting as judge this season at a show of some pretence, where a bunch was shown for the heavy prize having two fruit stems from the main rod or side shoot somewhat ingeniously worked together, but we did not hesitate in disqualifying the said bunch. Anxiously waiting your version.—M. SUTHERLAND.

[We shall be glad to hear from our readers their definition of a bunch of Grapes.—EDS.]

I AM very much disappointed at "D. R." not answering my questions. From the fact of his being present at the weighing and interesting himself so much in the proceedings, he must have known whether the Judges were present, and, if so, if they inspected the Eskbank Grapes; for it is very important that it should be known whether it was an oversight on their part, or that they accepted it as a *bond fide* bunch.

In your issue of the 14th inst. "A GRAPE-GROWER" says, "It is not too much, I think, to ask Mr. Dickson for the names of the gentlemen who are able to corroborate his statement; it would strengthen his case, and do them no harm whatever." I most cordially comply with his request, and furnish the letters which I have received from these gentlemen, and leave the public to draw their own conclusions.—JAMES DICKSON.

"My answer to yours of the 29th ult., 'What I consider constitutes one bunch of Grapes?' is, that it should all come from one eye, the same as your large bunch that was exhibited in Edinburgh, and not an inch or two apart, as the fruit stems of Mr. Currer's bunch were. To have a perfect bunch of Grapes the bunch should hang by one stem. I corroborate every word you say in reply to 'AN ENGLISH GRAPE-GROWER.' I was staging my fruit in the room when your bunch came in, and I can affirm that the berries were neither rubbed nor bruised, and no bunch could have carried better. I went and looked at the bunch soon after it came in.—ALEX. INGRAM, *The Gardens, Alnwick Castle.*"

"In reply to yours of the 27th ult. After seeing the Eskbank bunch it was what I considered to be two bunches of Grapes, or what I always understood to constitute two distinct bunches of Grapes. They were, as far as I can judge, from 2½ to 3 inches apart. I could have shown some splendid bunches of Black Hamburg, but could not owing to the fruit stems being half an inch apart.—P. STEWART, *The Glen Gardens.*"

"In reply to your note of this morning (Sept. 25) regarding Mr. Currer's large bunch of Grapes, I beg to say that I consider the prize fairly yours. Mr. Currer's exhibit was a grand bit of Grape-growing, but at the same time you cannot fairly call it one bunch. I have always understood one bunch to mean one stem from the wood, however short, or even two if they fairly split at the union with the wood. But Mr. Currer's had quite 1½ inch of clear space between the two stems; therefore I consider them two distinct bunches, and I think, for the sake of those who exhibit, it ought to be clearly understood that one bunch of Grapes should hang by one stem.—JAMES LOUDON, *The Quinta, Chirk, Ruabon.*"

"Yours letter duly to hand, and I must own I cannot blame you for re-opening the question, 'What constitutes one bunch of Grapes?' My old friend Loudon of The Quinta and myself the moment we saw it (Mr. Currer's bunch) called it a 'twin.' This is the first time that I ever saw a twin beat a dead honest one bunch.—WILLIAM JONES, *Gardener to Marquis of Londonderry, The Gardens, Wyngard Park, Stockton-on-Tees.*"

"I AM in receipt of yours of the 4th inst. I certainly did examine the Eskbank bunch of Grapes, and there was decidedly a clear space of an inch or two between the fruit stems, which in my opinion made two bunches of Grapes. What I consider one bunch of Grapes should come direct from the shoot with one stem. Any more stems, of course, are so many more bunches.—I. THOMSON, *Edinburgh.*"

"Yours of yesterday (Sept. 29) is to hand. I don't think any Grape-grower in the kingdom will for one moment dispute your opinion as to what constitutes one bunch of Grapes, that 'there should be but one fruit stem from the shoot.' The other morning in the Music Hall when you asked me to look at Mr. Currer's bunch I was prevented by the policeman from inspecting it. I shall feel deeply interested to know how the matter will end, and trust justice will have its proper course.—GEO. JOHNSTON, *Glamis Gardens.*"

## NEW JAPAN ROSE, BEAUTY OF GLAZENWOOD.

A few years ago we looked upon the list of forthcoming new Roses with much greater interest than at the present day, for so many new varieties are annually poured into the market, which prove mere costly rubbish, that we have had a cooling-down. Had Mr. Smith's illustration of Beauty of Glazenwood, in the "Floral Magazine," appeared in those old times, it would have created a tremendous sensation, and, cautious as we are grown, this real novelty cannot fail to awaken much interest throughout the Rose world. A Rose of golden-yellow, striped and flaked with scarlet or vermillion, sounds like a dream or a fairy tale. It is, nevertheless, a reality, attested by Mr. Smith's brilliant plate, in which Mr. Woodthorpe considers full justice is not done to the richness of colouring of the Rose itself.

When I was in Essex, in July, I had the pleasure of seeing fine healthy trees of this remarkable Rose, but I was a little too late for the flowers. Some blooms had just been sent to Mr. Smith for making his illustration, which may have been seen already by some of your readers. I am glad to testify to the very vigorous growth and hardy character of this Rose. The heads of standards of it consist of long graceful shoots from 4 to 6 feet in length, which were last winter perfectly uninjured even to the tips, though quite unprotected.

Beauty of Glazenwood is a summer-blooming variety, and will make a beautiful climber or an equally fine standard, flowering as it does from every eye on its long pendulous shoots. Mr. Woodthorpe describes it as strikingly lovely in the bud state. It is like Madame Falcot in its yellow ground, while the vermillion flakes on the petals resemble "the colouration of a Tulip," and it has also a delicate fragrance.

It will certainly prove an important and charming addition to our already rich array of Roses, and be most valuable in hybridisation, on account of its peculiar colouring and distinctness.—HENRY CURTIS, *Devon Rosery, Torquay.*

## THE LEEDS NATURALISTS' FIELD CLUB AND SCIENTIFIC ASSOCIATION.

120TH MEETING, SEPTEMBER 15.

MR. JAMES ABBOTT exhibited a number of interesting plants collected in the West Riding, including *Potentilla norvegica*, which grows abundantly on the banks of the Leeds and Liverpool Canal between Armley and Kirkstall, and appears to have been thoroughly naturalised. It was first gathered about 1880 by Mr. Wm. Kirkley, but not satisfactorily determined at the time. In 1888 it was found, also apparently native, in Burwell Fen, Cambridgeshire, by Mr. G. S. Gibson, and recorded by him in the "Journal of Botany" for that year (vol. vi., p. 802; also see Babington's "Manual," seventh edition). In 1874 Mr. Abbott noticed it in great abundance, and this year it was sent to Kew to name, when it turned out to be a Scandinavian form, though in what manner it reached the Leeds district is as yet unaccounted for. Mr. Charles Hobkirk reports that in 1873 he found it on the banks of the canal near Huddersfield.—W. D. B.

STRAWBERRIES AT NOTTINGHAM.—On looking through the flower market last Saturday (October 16th) a great crowd seemed to be gathered round one notable stall. I soon saw the cause—viz., a basket of very fine Strawberries (*Vicomtesse Hérécart de Thury*) was there on view, equal in colour and fair for size. They were gathered from the open ground on the 15th from established plants that had borne heavily during the season, and had received no extra care or attention. They

were grown in the Strawberry gardens of Mr. Joseph Lamb, Burton Joyce, near Nottingham, the same person who was awarded the two first and one second prize at the great exhibition held in the Arboretum during the summer.—S. P.

### THE OLEANDER.

WHEN laden with their noble tresses of beautiful rose-coloured flowers these plants are ever to be admired; but under their beauty danger lurks, for the plant contains one of the most virulent of poisons. This applies more particularly to *Nerium Oleander*, although the double-blossomed species, *N. odorum* plenum, so common in the conservatories of England and on the terraces of continental gardens, is by no means innocuous. It is well, therefore, that in appreciating the undoubted beauty of this family of plants that we should be cognisant also of their poisonous nature. They are plants to be enjoyed for their beauty, but must not be thoughtlessly played with.

In proof of the poisonous nature of the family, it is on record that some soldiers during the Peninsular War collected wood of the Oleander and of it made skewers for their meat, and the result was that of twelve who partook of the meat seven died, and the remainder suffered acutely. It is further recorded that in order to facilitate the removal of the bark Dr. Roxburgh put some young shoots into a fishpond, and found the poison so extreme as to kill nearly all the fish. It is also known that when the trees are growing in full luxuriance in their native habitats that there is danger even in sleeping beneath their shade, on account of their noxious exhalations. Thus the plant is treacherous in its nature, for its beauty is but a garb to hide its hidden powers of evil. There is, however, some consolation in the fact that the poisonous nature of the plant is not so great when grown under artificial cultivation as when flourishing in its natural wild luxuriance.

Therefore with ordinary care *Neriums* may be cultivated for the beauty of their blossoms; but no child should be permitted to playfully eat its flowers, nor gardener thoughtlessly make a toothpick of its shoots.

The double varieties of *Nerium* are exceedingly ornamental conservatory plants, and their culture is extremely simple. Young shoots will readily strike at any period in brisk heat, and older wood will emit roots in profusion if the shoots are inserted in phials of water. In growing the plants to a flowering state too much water cannot be given to the roots, and scarcely too much heat and sun can be afforded to the foliage. The points to aim at are an early season of growth in a light and well-heated structure, a dry atmosphere to ripen the wood, and a rest in winter by withholding water. The shoots that are made one season flower the next, and the plants if properly prepared will force well. They may after blooming be cut down and shaken out, as is practised with *Pelargoniums*, which will keep them dwarf; they will then have a season of growth, and will flower grandly the season following. Large plants will, however, flower every year on the preceding year's shoots, but they attain a straggling habit if not pruned occasionally.

Cuttings if struck in the spring, planted out in a hot place to make their growth in the summer, and potted during the

autumn, will often flower the year following, and large plants are produced in a less time by planting-out than can be produced by pot culture.—J.

### STRAWBERRY CULTURE.

THE few lines inserted on page 275 of "our Journal" sufficiently explained my motive, which certainly was not to enter into any controversy with Mr. Lovel, whose name had never attracted my observation till August 26th, and I should not reply thereto if his subsequent communication inserted on page 332 had not a tendency to mislead. I do not go two or three years without tasting fruit, but I take about half a score from each plant the first year, and they are as fine as any I obtain; that is all the plants are allowed to bear. I take my runners from old plants reserved for the purpose and in pans or pots, which I find is the only way to obtain really good plants. I do not doubt what Dr. Roden has stated,

but he is one I believe of the few who retain their plants many years; his experience must always carry great weight, and for his contributions to "our Journal" all Strawberry-growers are indebted; but the statement made by your correspondent of what Dr. Roden has done is not what we differ on.

I can quite comprehend how it is possible to grow 1 lb. of fruit per plant the first season after planting. Your correspondent should not have curtailed the sentence, but added, "on plants planted in September, grown in very light soil, without any manure added at the time of planting, and twice transplanted." Another omission, I take it, occurs after the following sentence:—"From British Queen, Dr. Hogg, President, and others I could pull thirty Strawberries to weigh 1 lb." Would he add from one-year plants planted last September and without manure? All Strawberry-growers know that British Queen and all the race require strong ferruginous soil and well manured to bring them

to perfection, and at page 182 your correspondent alludes to President as one of the kinds that do not fruit well the first year.

I can assure your correspondent that I have very carefully read his communication at page 242, and quote therefrom:—"I strike my runners in each alternate row of first-year's plants, gathering the fruit from every other row." If this does not mean that every other row is set aside to take runners from what can it mean? But his explanation makes his practice, in my opinion, far worse, for he states that he takes from every plant four to six runners and 1 lb. of fruit too, thus weakening his plants so much in their first year's growth as to render them worthless, for to take five plants from every 15 inches longitudinally must remove nearly all the soil on one side of the plant. The point is not whether 1 lb. of fruit per plant can be produced the first year after planting—I know that can be done, but before I believe it can be done under the circumstances stated by your correspondent I must have the authority of such men as "D., Deal," "C. P. P.," Rev. W. F. Radclyffe, and Mr. Douglas, or men of that stamp, to whose opinion one can defer, and on whose judgment one can rely.

As an amateur of more than twenty years' experience, who has studied and practically tested the opinions of such as I

Fig. 76.—THE OLEANDER.

have named and other contributors to "our Journal," and who has not neglected an opportunity of inspecting in all parts of the country the practice of others, I can truly say that I never heard or read of the British Queen or any of her race doing well on very light soil before, but, on the contrary, have both read and heard of the sort being changed for others more suitable to the soil, and I hope to have my opinion confirmed or otherwise by such cultivators as I have named.—AN OLD SUBSCRIBER.

### ROYAL HORTICULTURAL SOCIETY'S SHOWS FOR 1878.

THE Council have decided to hold five great shows besides the usual fortnightly meetings in 1878. The first or Spring Show will be held on the 16th of March, the May Show on May 8th, the June Show on the 7th and 8th of June, the July on the 19th and 20th of July, and the Great Fruit Show on the 8th of November. A liberal schedule is in preparation, and will shortly be ready for circulation.

### GLADIOLI—DEGENERACY OR DISEASE.

I ACCEPT the challenge Mr. Douglas has thrown down, and maintain that the cause of failure in the Gladiolus does not arise from degeneracy, but from a disease which we cannot master, but which seems to me to bear a remarkable analogy in its effects to that which infects the Potato. Let me first define what we mean, lest it be simply a war of words. I understand by degeneracy a weakening of the constitution, by which the plant becomes incapable of flowering with its former vigour, and so becomes worthless to its possessor. By disease I understand some affection of the tissues of the plant, by which the oorm becomes so seriously influenced that it is unable to maintain life at all, and so perishes. In some cases the disease may not absolutely kill the plant, but it very rarely is able to grow again.

Mr. Douglas holds that his Gladiolus bulbs are affected by the former complaint, and adds that if I did not import each year from France I could not maintain my collection. He may be surprised to hear that, with the exception of the new varieties, I import very few bulbs, and that some of my finest spikes this year were from English-grown oorms. But independently of my own experience I can give that of another grower who is, I believe, by far the largest amateur cultivator of the Gladiolus in England. He has, to my certain knowledge, not imported one single bulb from France for the last ten years except the novelties of each year, and yet he has every year from eight hundred to a thousand surplus bulbs. Nor are these poor bulbs: they pass, many of them, into the hands of one of our most respected seedsmen, and not only are they satisfied with the bulbs, but their customers invariably speak of them as satisfactory.

I may add that one or two of the spikes of Meyerbeer which I showed this year were from his bulbs.—D., Deal.

### POTATOES.

As the time (November 10th) is drawing nigh for the Potato competition, a few remarks from one who is not a competitor, but who feels himself interested in the forthcoming struggle, may perhaps find acceptance. The competition will bring out many points of culture that will be useful to the raisers of new sorts in the way of propagation; but according to the arrangements some unpleasantness may arise. The crops I think ought to be taken up in the presence of Messrs. Hooper & Co.'s agent and weighed on the spot, and that weight to be the standing point, no matter what is lost afterwards by disease; whereas this season the disease is so prevalent that some of the competitors will lose two-thirds of their crop before the time to send them in for competition, and this will happen in the case of those that have the most weight and have been produced with high cultivation. Of course when the crops are lifted and weighed they will be placed in the best position at command to keep them until the time to send them in. Now what is to prevent those competitors who have a surplus stock in hand from picking out the diseased tubers and replacing them with sound tubers? Not that I think any honourable person would do it, but it is an old saying and a true one that there is "more got by scheming than by hard working."

There will be some great weights from 1 lb. of seed, in fact

one has already appeared in the Journal; but at the same time I cannot see that any practical purpose will be gained by it, as the system by which they are produced will never do for ordinary cropping. The weights will also lead many people astray unless they are well acquainted with each variety and the mode of growth which has been adopted. The American varieties will stand cutting into the smallest sets possible, and they will grow, soil and season being favourable, into heavy crops; but I think that is no proof of real value.

I should like to see prizes given for some of our best English varieties, which are not so liable to the disease as the American varieties, but they will not stand cutting nearly so small as the Yankees; and 1 lb. of English seed would not produce more than half the weight that the same quantity of American seed would, and yet the English variety may be more really useful under ordinary cultivation.—H.

### A VISIT TO POTHOLM,

THE RESIDENCE OF JOSEPH TAYLOR, ESQ.

WHEN in the picturesque district of Eskdale, besides my visit to the small garden of Arkleton and its great Grapes, I was induced by the owner of Burnfoot to inspect the garden of Mr. Taylor, whose residence is ensconced amongst the heath-clad hills, and is two or three miles distant from the flourishing town of Langholm. I was rewarded by witnessing some good gardening, the Grape-growing especially being of a superior order. This garden was then under the charge of Mr. Bole, who is now gardener to Lady Crossley at Somerleyton, Suffolk. Potholm is not a large garden; it was newly made by the owner, and under the able management of his gardener it was more than ordinarily productive. As the Grapes were the chief feature of the place, almost rivaling those of Arkleton, and as I am, by the courtesy of Mr. Bole, able to supply instructive matter concerning them, I will give them prominence in this brief notice. I have said they almost rivalled those of Arkleton, but I believe that on more than one occasion the Potholm Grapes have had the post of honour when in competition with the produce of the above renowned vineries at the local exhibitions. Grapes, then, that have done so much as have these must have a history worth knowing.

The vineries were finished in May, 1869, and on the 28th of the same month the last of the Vines were planted. The site of the garden was styled The Orchard, in reality a waste which had been occupied for at least a hundred years by Apple, Pear, and Plum trees, which had grown to giant proportions, with an undergrowth of Nettles fully 6 feet high, and what was not covered with Nettles was with Docks, Ranunculus, &c. But what has this to do with Vines? I will show that it has, or had, much to do with them, and played an important part in the success which has attended their culture. All this confusion had to be cleared away, the trees were uprooted, and their branches carried into a heap; the whole surface was pared off with the spade—grass, weeds, top soil, &c., and when all was ready the heap was fired. Some idea of the extent of the fire may be gathered from the fact that it burned for eight weeks. Here, then, is the secret of these fine Grapes—charred soil, ashes, and charcoal. The whole of this was incorporated into the soil forming the Vine and Peach borders. The old mansion house had also been pulled down; the old plaster, lime rubbish, &c., were also used. The soil was taken from a place where sheep had been folded, shorn, &c., from time immemorial, the turf being cut just as deep as the roots of the grass would lift. This was made up into a heap mixed with inch bones, the lime rubbish, and the residue of the great fire; and the whole lay in that state for about six weeks before using. The bottom of the borders were efficiently drained with about 1 foot of stones, brickbats, and the roughest of the refuse from old buildings, then turves green side down were laid over the whole. The soil was put in about 3 feet deep.

The Vines were planted and watered with tepid water on the day mentioned, and by October in the same year they had canes over 30 feet long, twice stopped, and the wood well ripened. They were pruned in November and started in March. One bunch was taken off each, the Syrian bunch weighing 7 lbs. In 1871 a bunch of the Syrian weighed 14 lbs., and in 1872 a bunch was cut weighing over 16 lbs., and in 1873 three bunches from one Vine weighed over 40 lbs. At that time the Vine, four years old, measured at 1 foot from the soil 6 inches in circumference, the young wood being 2½ inches in circumference. The other Vines consist of the old standard



varieties, and have succeeded in a manner that should satisfy the most fastidious. They were dropped as follows:—In 1870 they carried one bunch, in 1871 three bunches, in 1872 six bunches, and in 1873 and subsequently eight to ten bunches each. The Vines look as well now as ever they did, the average growth of the Black Hamburg measuring 2½ inches in circumference. The only covering which is given the borders during winter is a quantity of stable manure, and all the rain that falls on them is permitted to enter them, and that is something very considerable, averaging 5 feet a year.

Such is the history of these Vines. It is worth giving from its simplicity and for the soundness of the practice which it embodies. The practice which has produced such fine Grapes in Eskdale will, if adopted, produce them similarly fine in other places.

It is not necessary to dwell on the excellent plant culture at Potholm, or on the fine collections of Pentstemons, Phloxes, Dahlias, &c., growing in the grounds, but a passing glance may be made on the collection of hardy Heaths, many of which were charmingly ornamental at the time of my visit. These chastely beautiful hardy plants are worthy of extended cultivation. They will grow in almost any soil, providing it does not contain lime. These were luxuriating in a mixture of peat, leaf mould, and loam. I saw no collection of plants in Scotland more distinctly ornamental than Mr. Taylor's hardy Heaths at Potholm.

Mr. Taylor has, by the liberal means afforded in perfecting his own garden, done much for the horticulture of the district; and it is gratifying to find that Mr. Bole on his departure from Eskdale was presented by the inhabitants of the district with a handsome Fitzroy barometer and a purse of thirty sovereigns as a token of their estimation of his character as a man and his skill as a gardener.—J. W.

### OUR BORDER FLOWERS—ERINUS.

THIS is a small group of early spring and summer-flowering plants belonging to the Alpines. These plants will succeed in many situations, but they are chiefly recommended for rockeries. They are also adapted for edging purposes in the spring garden or elsewhere. When once established there is little fear of them becoming scarce. They grow well in a mixture of loam, leaf mould, and coarse grit. There are a few kinds enumerated, but they are all much the same in habit and appearance, the different colours being the distinguishing feature. When grown together the different shades of colour have a very pleasing effect, varying from rosy purple to white.

*Erinus alpinus* is most frequently met with. It is said to be from Switzerland, and admitted to our flora as a naturalised subject. *Erinus alpinus roseus* is an acquisition; its flowers being large and approaching rose colour, makes it very desirable. *Erinus hirsutus*, said to be from the Pyrenees, is but seldom seen. Perhaps the diminutive stature of these plants causes them to be overlooked, or it may be they are not sufficiently known to attract attention. I know a place by the side of a river where *Erinus alpinus* can be seen to perfection growing among the stones and sand. Whether the seeds had been washed there by the stream, or they had been purposely sown, I had no means of ascertaining.

Perhaps the time is coming when these partly-forgotten plants will be better cared for; they ought to be much more cultivated than they are at present.—VERITAS.

**THE GRAPE CURE.**—Amongst the most agreeable hygienic processes extant, says the *Pall Mall Gazette*, must be reckoned the Grape cure, for which this is the season. There are on the Continent numerous establishments devoted to the use of the remedy; two in France—Aigle in Savoy and Celles-les-Bains in the Ardèche; three at least in Switzerland—Vevy, Vevey, Montreux; and many in Germany, Austria, the Tyrol, and Hungary. The juice of the Grape containing, according to a medical authority, 25 per cent. of its weight in active agents—glucose, tartaric acid; potash, chalk, soda, oxide of iron, and manganese in combination with sulphuric acid, phosphoric acid, &c.—there is some reason for comparing this "organic mineral water," as it has been called, with the inorganic, the curative powers of which are so universally recognised, and for expecting similar results from it. The cure is very simple. It consists in eating an immense quantity of Grapes, the thin-skinned sweet white varieties being best for

the purpose. The patient takes but little ordinary food, and is required to eat 3 or 4 lbs. of the fruit a-day just at first, the quantity being gradually increased to 8, 10, and even 12 lbs. of Grapes. This is, if possible, to be eaten in the open air, in the vineyard whence the supply is derived—an arrangement which, no doubt, greatly conduces to the efficiency of the cure. It is frequently undertaken in their private practice by French physicians, who possess the material for it in the incomparable Chasselas, of which such quantities are now selling in Paris.

### LUCOMBE, PINCE, & CO.'S NURSERY, EXETER.

ENGLAND is pre-eminently the country of stately trees and picturesque gardens; but in no part of our country do we meet with a more grand array of natural beauties, or a more happy application of the resources of art to enhance their effect, than in the county of Devon. The stranger visiting Exeter will find excellent hotel comfort; and he will naturally desire to see something of the town—the grand cathedral, the public walks and pleasure grounds, and the scenery of the neighbourhood. Being a gardener I made my way to the nursery of Messrs. Lucombe, Pince, & Co., which I will now endeavour to describe. This nursery was established in the year 1720 by William Lucombe, the raiser of the Lucombe Oak and many other choice trees, and has long been renowned for the excellence of its productions; and judging from the skill and enterprise at present being bestowed upon it by Dr. Woodman, who has assumed the administration of its affairs, its reputation is likely to be sustained.

On entering the gates the visitor cannot fail to admire a fine specimen of the Lucombe Oak. This is the original plant, and close by it stands the Cork Oak (*Quercus suber*), making a handsome pair. Two large plants of Ford's Oak (*Quercus Fordii*), raised at the establishment by old Mr. Pince's foreman, Mr. Ford, also attract attention. They are two noble objects, being trained as pyramids, and are unsurpassed in beauty.

The show house is our next object of interest. This superb conservatory is enriched with a profusion of beautiful plants, shrubs, evergreens, Ferns, and flowers arranged with great taste. Among the noted specialities were *Colusées* The Shah and Lady Burrell, and *Amaranthus salicifolius*. These plants were sent out with glowing characters, but we seldom hear a good word spoken of them, yet here they hold a prominent position, and are unsurpassed in richness of colour and vigorous growth.

Worthy of notice also is the *Camelia* house, which is more than 200 feet long by 80 feet in width. Some magnificent specimens are planted out in the borders, and seem to luxuriate in all their natural beauty, and form a perfect grove. Close to the termination of this house there is a rock garden most artistically arranged. The visitor enters apparently natural openings formed in natural rock, which is covered with a drapery of rare, curious, and beautiful rock plants and Ferns. Jasmines, Roses, Honeysuckles, and other twining plants festoon themselves over the rugged parts, and feathery forms fringe the bare blocks of stone, imparting an agreeable effect to the many secluded nooks and pleasant retreats.

We now pass to the stove plants. There are several large houses devoted to their culture, in which there are some very fine specimens. The clean and healthy appearance of these plants at once shows that skill is employed in their growth, and which reflects credit on Mr. Cole, the plant foreman, a member of the well-known Manchester family of plant-growers. I shall only particularise a few of the large plants in the specimen houses.

Here are tree Ferns and Palms, noble Bananas, and *Cyclophyllums*; handsome *Alocasias* Lowii, *Veitchii*, *zebrina*, *Jenningii*. *Orotans* are also in fine condition, the following being remarkably elegant, and ought to have a place in every collection—*Orotan variegata*, *C. Youngii*, *C. Veitchii*, *C. Johannii*, *C. lacteum*, and *C. Weismannii*. *Dracenas* are equally fine, the most distinct and ornamental being *D. congesta*, *D. imperialis*, *D. splendens*, *D. Fraserii*, *D. regina*, and *D. Mooreana*. Of *Marantas* I noticed a rich collection; *M. illustris*, *M. Lindenii*, *M. zebrina*, *M. roseo-picta*, *M. regalis*, and *M. Veitchii* are the best of this charming genus. Amongst flowering plants I observed *Eucharis amazonica*, with hundreds of white flowers, emitting a delightful fragrance. *Dipladenia amœna* was quite a blaze of flowers, as also were *D. crassinoda* and *D. insignis*. The *Ixoras* looked pictures of health, flowering freely; *I. Collei*, *I. crocata*, *I. Dixiana*, *I. javanica*, *I. salicifolia*, and *I. Williamsii* were all in admirable condition.

Many houses are devoted to the culture of Heaths, New Holland plants, Geraniums, Ferns, and Orchids. Most of the houses are 180 feet long. Grapes and Peaches are largely grown here, the Grapes being very fine, especially Mrs. Pince's Black Muscat, which continues to be a great favourite. The propagating department is a remarkable feature in this establishment. The houses are the best constructed of the kind in the country, and it is surprising how tens of thousands of plants are produced here in a short time.

It is now time to pass on to the outdoor department, which after all is the chief glory of the establishment. The grounds are about sixty acres in extent. Of ornamental trees, shrubs, fruit, &c., there are great collections. Many of them are of great beauty, and as yet not in common use. I noticed many hybrids comparatively new. Hybridising has long been carried on here with remarkable success, many new plants having been thus produced. The Conifer Walk is a quarter of a mile in length and intersects the nursery. In this department are plants of considerable size and great beauty, popular kinds, which I need not enumerate. On the left of this walk is the Winter Garden, planted also with Conifers and evergreens. The Irish Yew and standard Portugal Laurel are exceptionally fine and symmetrical. The variegated Hollies, both globular and pyramidal, are also striking objects. Opposite this is the Italian Garden, a perfect gem of its kind. The Irish Yews and Laurels with the vases give this garden a most exotic appearance, and the general beauty is greatly enhanced during the summer months by an extensive display of bedding and subtropical plants. I noticed here two new plants—one *Begonia Woodmanii*, a very fine variety, flowering well outdoors; the other a Geranium named *Bold Brook Pet*, a dwarf variety with large trusses of orange-scarlet flowers. For the removing and transplanting of large trees Barron's tree-moving machine is employed. It will carry eight tons and upwards, and Dr. Woodman said there is very little risk in removing them of that weight; and to substantiate his testimony he drove me to Exminster, a distance of three miles, where they have recently formed a new nursery, and where large trees have been planted and are flourishing well.

The nursery throughout is in a high state of keeping, and an inspection of the grounds and plant houses affords both enjoyment and instruction.—N. COLE, *Kensington Palace*.

#### HERBACEOUS PLANTS FOR BEDDING.

Among notices to correspondents in our Journal information is requested about a hardy herbaceous plant for bedding to flower at the same time as Geraniums. I have used effectively *Centranthus ruber*. There are three colours or varieties of this plant—red, crimson, and white, and when contrasted together or in separate colours they are very effective. By careful culture the plants may be had in bloom through the summer and often into early winter. To have a continuous bloom they require to be thinned and stopped to produce successional growths.

*Geranium sanguineum* is a plant that continues long in bloom. With careful thinning the shoots and stopping them the blooming season may be prolonged. *Crucianella stylosa* is a continuous-blooming plant, and might answer for the purpose named. It should have poor soil and be kept as dry as possible, otherwise it is a rampant-growing plant. *Delphinium Belladonna*, with careful stopping and pegging-down in good soil, is a very useful plant for bedding, and may be kept in bloom a long time. *Nepeta violacea* flowers a long time, and by careful thinning of the shoots gives a succession of bloom till autumn. *Dialytra spectabilis* is a fine plant for bedding in good soil, and by thinning the shoots it blooms a long time and is always prized for cut flowers. *Oenothera macrocarpa* and others might be named.—M. H.

#### EXTRACT FROM THE REPORT OF THE BRISBANE BOTANIC GARDEN, QUEENSLAND.

To illustrate the capabilities of the Queensland climate, it may be mentioned that the several varieties of the Mango plant, introduced principally from the far apart latitudes of Java, the West Indies, and Bombay, have yielded during this season more abundantly than heretofore; and this notwithstanding the unfavourable weather which characterised the earlier period of the season, upon the state of which the Mango is supposed to be mainly dependant in its fruiting. All the

plants are yet quite young—some having been propagated in these grounds, others imported in an infant state. There are three varieties from Java—the Sangier, the Gumpoh, and Dagiang. The fruit of all these plants is mellow and grateful to the palate, and invariably elicits high encomiums from those whose experience well qualifies them to form a judgment. These last mentioned are considered fully equal in flavour to the far-famed Mango of Bombay, of which these gardens contain three varieties—viz., the Strawberry, the Alphonse, and the Go. A Mango seed forwarded some years since from the West Indies has been successfully propagated, and plants of it distributed to some of the residents of Brisbane. A specimen of this season's fruit from one of these plants turned the scale at 26 ozs.

The following is a list of the principal plants that have flowered or borne fruit during the past year:—*Rhopala corcovadensis*, *Rhododendron virginialis*, *Pandanus utilis*, *Pandanus latifolius*, *Pandanus pygmaeus*, *Oreodoxa oleracea* (twelve years old), *Anthurium Scherzerianum*, *Philodendron Lindenianum*, *Strelitzia Nicotii*, *Maranta grandis*, *Achris sapota* (*Sopadilla Plum*), *Passiflora macrocarpa* (fruit 8 lbs. weight), *Lilium Wallichianum*.

**COFFEA ARABICA (Coffee).**—Attention has been called to this plant in consequence of a despatch to His Excellency the Governor from the Secretary of State for the Colonies, Lord Carnarvon, as to the Coffee-leaf disease in Ceylon. The Coffee plant in Ceylon is suffering great ravages from a well-defined species of fungus, *Hemileia vastatrix*, which belongs to a class of most minute parasitic plants, which include the oidium of the Vine and the peronospora of the Potato. This disease has for some time past been causing great anxiety and consternation amongst the planters there, as well as in some other parts of the world where it has appeared. It is satisfactory to find that no trace of this disease has as yet been found in Queensland, neither do I think, if care is taken, is it likely to take root here. In my report on this matter to His Excellency I went fully into the position and prospects of coffee cultivation in this colony, and have only now to remark that there is a fine field in the northern districts for the profitable investment of capital in the cultivation of this great commercial staple. Thousands of acres of suitable land are to be found from the Herbert River to the Endeavour River, all along the north-east coast, and extending from ten to thirty miles inland. In this district the branches of the tree grow very robust and horizontal, while it begins to bear fruit about the third year, producing very shortly thereafter 3 lbs. of berries per tree per annum. The plant flourishes, however, in all parts of the colony, although it is not so productive in the south, and takes longer time to come to maturity. I have every hope that on the publication of my report in England the attention of capitalists and planters will be directed to this colony, when it is known that the plant has found such a congenial habitation in northern Queensland, where there appears also to be every prospect of now obtaining a cheap, though inferior, class of labour; and especially when it is found that the plant is not subject to the ravages of this most destructive fungus. I would consequently call the attention of the Government to the great care necessary, at present, in permitting Coffee plants from being imported into the colony from countries affected with the disease; and I would suggest that, until the cause and origin of the disease is fully diagnosed, only seeds and plants be permitted to be imported from those countries where the disease does not exist. His Excellency has forwarded me a copy of the correspondence upon "the Coffee-leaf disease," which can be consulted, in the Botanical Library, by persons interested.

**CHOCOLATE, OR COCOA (Theobroma Cacao).**—This is another plant that could also be cultivated with great success in the same northern districts as coffee, and would form a most profitable and lucrative investment for capital, as there is an extensive market all over the world for its consumption. It is a plant which can be cultivated with much less trouble and expense for labour than coffee, being a tree of larger dimensions; it requires, however, to be planted more openly, but during the period the trees are taking to arrive at maturity the distance between the rows in the plantation could be turned to profitable account by the raising of such plants as Ginger, Arrowroot, Cassava, Indigo, &c. The trees take from four to six years to come to maturity, but thereafter they require very little labour or attention except to gather the fruit, for the Cocoa crop may be said to last throughout the whole year, although there are three principal gatherings of

the fruit annually. A Cocoa plantation once properly established is a rich possession to its owner; it is therefore to be hoped that some enterprising capitalist may consider this industry worthy of his attention in northern Queensland.

A great many other highly valuable plants in a commercial point of view could be successfully and profitably cultivated in the lately explored territory of the north, lying between the Herbert and Endeavour Rivers, such as the *Quintohou* or India-rubber Tree (*Siphonia elastica*), *Gutta Percha* (*Isopandra Gutta*), *Gamboge* (*Hebradendron gambogeoides*), *Palm Oil* (*Elais Guineensis*), *Quinine*, yellow bark (*Cinchona calisaya*), *Quinine*, red bark (*Cinchona succirubra*), *Ipecacuanha* (*Cephaelis Ipecacuanha*), and a host of other tropical exotics.

The *LAC INSECT* (Homoptera Coccida), and the plants it inhabits.—My attention has been recently directed to the commercial importance of the produce of this insect, and I am at present in communication with several correspondents in India and China to endeavour to obtain a supply of the best species of insects for the purpose of acclimatisation, as the trees upon which the insect subsists, and deposits in such large quantities the waxy substances from which the shellac and lac dye of commerce are prepared, flourish most admirably in various parts of the colony, but especially in the northern districts, where I believe the insect would be easily acclimatised. The trees upon which it lives in other parts of the world, and which are to be found growing to perfection in the Gardens and elsewhere in the colony, are the Indian Fig (*Ficus indica*), *Butea frondosa*, &c.; but I am also certain that the insect would take to many of our indigenous trees, and subsist as well upon them as the above, such for instance as the Moreton Bay Fig (*Ficus macrophylla*), *Rhamnus Vitiensis*, *Zizyphus quadrilocularis*, *Croton insularis*, &c. The produce of this insect is largely used in the arts in various manufactures in India, China, Japan, and various other countries; the value of the imports into England alone is from £800,000 to £400,000 per annum. It is, therefore, an article which is well worthy of the attention of the colonist.

The Sugar industry, as will be seen from the statistics given in this report, is increasing in importance in a great ratio yearly, the production of last year being fully two-fifths or 40 per cent. in excess of that of the previous year; and when settlement takes place upon the rich tropical lands of the north, so suitable for the industry, and with the further prospect of cheap Asiatic labour, I fully anticipate even a still larger increase in the production of this valuable commercial commodity.

I have it on reliable authority that sugar cultivation in this colony is causing great uneasiness and anxiety amongst sugar planters of Java and neighbouring islands, as they are convinced that, notwithstanding their advantage of cheap labour, that, from the superior quality of our sugar, due to the expensive and greatly superior machinery used in the refining process, that it will be quite impossible to compete with our growers, and that the fine quality of our sugars will drive their present low class sugars entirely out of their various markets.

I have at present about fifty (50) different varieties of sugarcane in the Gardens. It is now becoming almost impossible for the Gardens to act longer as a nursery for this plant; the requirements of the colonists for all these various different varieties is so immense that the requisite space cannot be set apart, and the soil and situation is not very suitable for the proper development of many of the plants. To meet the demands of those engaged in sugar cultivation, and for the successful growth of each kind, about a quarter of an acre would be required for each variety.

### ORCHARD HOUSE APPLES.

A few years ago we called the attention of our readers to some fruit of Cox's Orange Pippin we received from Mr. Abram Bass of Moat Bank, Burton-on-Trent, and which had been grown in an orchard house. The beauty of their colour, the wonderful delicacy of their flesh, and their richness of flavour were remarkable. Mr. Bass has again sent us this year some fruit of the same variety which in size and colour surpass anything we have ever seen, while the flavour cannot be excelled. They are indeed "Apples of gold." With these are also samples of Margil and the old Nonpareil, the latter so changed by its indoor cultivation as to be with difficulty recognisable.

But the lesson to be learned from this is, that Apples of this

class which are grown for flavour are so highly improved both in that respect and in appearance by being grown in an orchard house that we commend the system to all lovers of fine fruit. The texture of the flesh and the delicacy of flavour are such as cannot be found in any Apples grown under any other conditions. Such is the effect of this system of growing Apples, Mr. Bass informs us, that the state of ripeness is so advanced that the fruit does not keep so long as it ordinarily does when grown in the usual way.

It might be worth the while of fruit-growers who can appreciate good cultivation to pay a visit to Moat Bank in the season when gardening operations are going on, and see for themselves what two ardent amateurs—for Mrs. Bass is herein included—can do when stimulated by a love of their pursuit. It was our privilege to see the fruit houses there when they were in their best condition about two months ago, and we can testify unreservedly that we never saw better Grapes in the vineries nor finer fruit in the orchard houses than we saw at Mr. Bass's. *Apropos* of Grapes, Mr. Bass has been good enough to send us a handsome bunch of Muscat Hamburg as well set as any old Hamburg could be; and though rather red than black in colour the flavour is very rich, and justifies Mr. Bass's observation, "*Nimum ne crede colori*"—that is, "A good horse is never a bad colour."

### EARLY WRITERS ON ENGLISH GARDENING.

No. 8.

JACOB BOBART.

THE sixteenth century was the birth-time of botanic gardens. Italy led in this most effectual movement for the promotion of a knowledge of plants and their cultivation. The first established was at Padua in 1533, the movement was communicated to Switzerland and Germany, and in England the first botanic garden was established in 1632 at Oxford, and its founder was Henry Danvers, Earl of Danby. He gave five acres on the banks of the Cherwell, on the south side of St. Mary Magdalene College. He built greenhouses and stoves, enclosed the garden with a stone wall 14 feet high, erected a house for its superintendent, and engaged the first—JACOB BOBART.

The Earl of Danby was a gentleman commoner of Christchurch, and his mansion, Cornbury, was in Oxfordshire. Wood states that the Earl, "being minded to become a benefactor to the University, determined to begin and finish a place whereby learning, especially the faculty of medicine, might be improved." He gave £250 to purchase the meadow ground near the Cherwell. The tenant was bought-out in 1622, and the University took a lease of the ground from Magdalene College, paying yearly 40s. The first stone was laid on St. James's Day (July 25th) the same year. The enclosing wall was not finished until 1633, and it had then cost the Earl more than £5000. He then had it planted with "divers simples for the advancement of the faculty of medicine." John Tradescant was to have been the Professor of Botany, but the occurrence of the civil war, and then the Earl's death in 1644, prevented the arrangement. He devised to the University the rectory of Kirkdale in Yorkshire, for the use of the garden—that is, for its keeping and a stipend to the professor and gardener. The revenue not being sufficient no lecture was read until 1669, when the King's Professor of Botany, Dr. Robert Morison, accepted the appointment for a stipend of £40.

The Botanic Garden, or, as it was originally named, the Physic Garden, occupies the ground that had been the cemetery of the Jews; when they were expelled it became the property of St. John's Hospital. The gateway of the Botanic Garden was designed by Inigo Jones, over it is a bust of the founder; and the statues of Charles I. and II., one on each side the gateway, were purchased with the fine paid by Anthony Wood, the Oxford historian, for a libel on the Earl of Clarendon published in the first edition of the "*Athenæ Oxonienses*." Two large Yews were pruned and clipped into the form of giants. They were much satirised in ballads written in 1662 and 1664.

Jacob Bobart was a German, born at Brunswick in 1599, and consequently was thirty-three when he came to Oxford in 1632. Therefore Mr. Evelyn was not wrong when in 1664 he described him in the following sentence of his "*Diary*":—"Went to the Physic Garden where were two large Locust trees and as many Platani (Plane trees), and some rare plants under the culture of old Bobart." Dr. Plot bears testimony that he was "an excellent gardener and botanist," and that

he was assiduous in collecting plants into the garden under his charge is proved by its catalogue which he published. This is entitled, "Catalogus Plantarum Horti Medici Oxoniensis. Sc. Latino-Anglicis et Anglicis-Latinis. Res alphabetico ordine accurate exhibens. 1848."

In the address "To the Reader" there is this compliment paid to "Bobart," as it is there spelt, that the catalogue is of the very valuable contents of the garden so largely increased in a short time by his diligence, care, and industry. There were then sixteen hundred "stirpes," but very many were varieties—for instance, of Primulas there were "Feild Cowslips, Feild Oxelips, Double Pailges, Cowslips two in a hose, Feild Primrose, Double White Primrose, Single White Primrose, Single Purple Primrose, Single Blue Primrose, Greene Primrose, and Corled Cowslip."

Bobart was an entomologist as well as botanist, for Ray, writing to Aubrey, says—"I am glad that Mr. Bobart hath been so diligent in observing and making a collection of insects."

Bobart died in the eighty-first year of his age, in the garden-house, on the 4th of February of 1879, and was buried in the churchyard of St. Peter-in-the-East, Oxford, and a tablet to his memory placed against the church wall. His portrait was painted by D. Loggan, and an engraving from that picture is copied by our wood-engraver. Beneath the original engraving is this couplet—

"Thou German prince of plants  
each year to thee  
Thousands of subjects grant a  
subsidy."

In the British Museum is an album (probably his son's) in which is this characteristic autograph—

"Think that day lost whose descending sun  
Views from thy hand no noble action done.  
Thy success and happiness  
is sincerely wished by  
"Ja. Bobart, Oxford."

The will of Jacob Bobart the elder was proved in the Court of the Chancellor of Oxford, and is there preserved. It is dated 2nd of November, 1877. The will of his son Jacob was proved in the same Court, and is dated 2nd of January, 1730.

The peculiarities of those who interest us are noteworthy, and therefore I jot down that on festive occasions Bobart decorated his beard with silver tags, and that he had as his following companion a goat instead of a dog. He always spelt his name Bobart, but his son as uniformly substituted an *a* for the *e*.

He was twice married. By his second wife he had no issue, but by his first three sons, Jacob, Joseph, and Tilleman, as well as seven daughters. Jacob succeeded him as keeper of the Oxford garden. Tilleman Bobart countersigned in conjunction with H. Joynes and J. Vanburgh the account of work done for the Duke of Marlborough at Blenheim in the concluding months of 1709. His brother Jacob devised to him the chief part of his property.

Bobart the elder's will, after the usual religious preface and declaration of the testator's being "of good and perfect mind and memory," directs his body "decently to be buried in the churchyard of Saint Peter-in-the-East, in the city of Oxon, near my dear wife Mary." It devises "unto my eldest son Jacob Bobart the lease of my Greyhound Inn and mea-

dow," holden from St. Mary Magdalene College, upon condition that he paid "unto my daughter Ann the sum of ten pounds yearly" during her life. The testator's son Joseph appears to have been then dead, for he devises a silver cup that was Joseph's to his son Jacob, "with all my garden plants and half my books." To his son Tilleman he devised "the lease of my houses at Smyth Gate," leased from the Oxford Corporation, but his executrix, who was his second wife, was to have during her life the rents and profits. To Tilleman he also

bequeathed the other half of his books. To his daughter Catharine he bequeathed £30; to his daughter Arabella, £40; to his daughter Elizabeth, £40; to his daughter Margaret his tenement in George Lane, Oxford, but his executrix to receive the rent during her life. To his daughter "Mary, wife of Richard Collier," he bequeathed £5, and to his daughter Ann 20s. a year. In conclusion he made his "well-beloved wife Ann" his executrix and residuary legatee, and asks his friends, Mr. William Shaw and Mr. Richard Moons, to assist her, and in return bequeaths to each 5s., "to buy them gloves."

A poem, entitled "Vertumnus. An epistle to Mr. Jacob Bobart, Botany Professor to the University of Oxford, and keeper of the Physic Garden. By the author of 'The Apparition' (Dr. Evans) 1713," has been considered as addressed to the elder Bobart, but no mention is made of him; it is an eulogium of his son similarly named, unless these couplets may be taken as an allusion to the first formation of the Oxford garden.

"All plants which Europe's fields contain  
For health, for pleasure, or for pain,  
Her squares of horticulture yield,  
By Danby planted, Bobart tild."

Fig. 77.—JACOB BOBART.

Knowing that Mr. Henry Tilleman Bobart some years since was collecting materials for a biography of his ancestor I wrote to him on the subject. He obligingly sent me some MSS., but they related chiefly to the descendants of Bobart the elder. This is especially the case with the very full pedigree he has prepared, but I obtained from it the Bobart crest, an Oak branch of silver bearing golden acorns, and his signature, of which this is a copy:—



Jacob Bobart.  
1659

—G.

DUNORLAN,

TEN SEAT OF B. E. COLLINS, ESQ.

It was on a lovely afternoon in September that I set out from Tunbridge Wells in search of Dunorlan, in response to a courteous invitation from Mr. Walker, who has had charge of



the gardens for, I believe, nearly twenty years; in fact, if I am not mistaken, most of the laying-out of this place was done under his supervision from the plans of Mr. Marnock. The neighbourhood of Tunbridge Wells abounds with fine houses and beautiful gardens. After passing many such I came to an entrance-gate with a pretty little lodge charmingly embowered in flowers and climbing plants, opening into the finest avenue of Deodars I have ever seen. The trees stand on turf; every one of them was in perfect health, flourishing with such vigour as would astonish those who regard this as a "doubtful" Conifer. The densely-clothed pendant branches resting on the turf, and tapering upwards to a height of about 80 feet, absolutely glistened with health, the silvery glaucous hue, so conspicuous in this Conifer when it is thriving, being finely developed. "Can you tell me the name of this place?" "Dunorlan," was the reply; and thought I, a treat is in store for me, so it proved.

The Cedar avenue takes a bold sweep down to the house, which stands upon a sheltered but commanding position. The building and its surroundings are equally fine, a noble pile with wide open upper and lower gravel terraces, each bounded by massive walls with open balustrading, tazas, vases, and flights of stone steps. At one end of the building is a conservatory in admirable keeping; at the other a croquet lawn, fringed on the north side by a belt of shrubs and trees, and with some magnificent Conifers, some standing out singly and others clustering behind a temple at its eastern end, the whole commanding a landscape of great beauty. Banks sloping in charming irregularity downwards to a valley; on this side dressed grounds abounding with shrubs in groups, Conifers clustering together in rich profusion and picturesque contrast, and occasional fine specimens standing out alone with the happiest effect. The deep rich green of Rhododendrons, a lake with winding shores—its waters not all visible from one point, but passing behind banks and among the cool shade of trees, with glimpses of walks leading to other points of interest. On the other side banks rise gently to an open undulating country, agreeably broken by trees with dark Pine woods in the distance.

Such briefly are the general features of one of the most charming scenes it has ever been my privilege to behold; nothing incongruous is to be seen; unity and harmony everywhere prevail, and yet there is variety even to excess. Let us explore, for there are ample details to reward our efforts, and in doing so we will strive to combine instruction with enjoyment.

By a walk leading from the carriage front to the conservatory there are some specimen Rhododendrons planted singly; the idea is an excellent one, and the position good. The green foliage already affords a pleasing relief and break to the brightness of the glass, and some day they will probably render what is usually a somewhat dull spot a most attractive one. We already have in this country Rhododendrons upwards of 80 feet high. Let the reader picture a single specimen of such sorts as Alarm or Mrs. J. Clutton of that height, well proportioned, and with branches to the ground laden with flowers. We have as yet nothing in our gardens to compare with this, but another generation may hope to see it. A gay bank of flowers in the conservatory was screened from the direct rays of the sun by means of blinds of an ornamental character made to slide along the interior of the roof, and not up and down in the usual manner, giving to it a novel appearance, and rendering the building an enjoyable resort in the hottest days of summer.

Passing from the terraces downwards to the lake by a walk winding among turf-clad banks among Conifers we come upon a Rose garden of a novel design and very picturesque appearance. On the upper side huge masses of rock irregular in outline protrude from the bank, and are partly concealed by a rich trailing growth of *Escallonia macrantha*; on the other side a dense Yew hedge with masses of shrubs serve admirably to screen the Roses from cold cutting winds, and its formality is agreeably relieved by an arcade of ironwork covered with climbing Roses, under which the walk passes.

Many features of interest present themselves in the lower part of the grounds by the lake. A rocky cascade fringed with trailing *Ocotoneaster* and a somewhat wild but picturesque growth of shrubs, a winding stream among huge rock boulders, and shady nooks with arbours; all very enjoyable, and possessing an air of quiet seclusion and retirement that is in delightful contrast to the open expanse of the upper lawns. It is after passing among such objects of quiet beauty that we come to an arbour almost concealed in a clump of trees, and overlooking the view we have had engraved. The surprise is a complete one, and the effect is delightful. The avenue is

17 yards wide and 260 yards in length. The trees are the Douglas Fir and Deodars planted alternately; they have grown considerably since the photograph was taken, and are already very ornamental. Some day, in another generation or two, when they have grown into stately old trees the effect will be one of surpassing dignity and grandeur. It was a bold step on the artist's part to introduce such a feature at such a point, so totally at variance with the stereotyped rules by which the operations of most landscape gardeners are governed. It is undoubtedly an avenue, but it is not a mere formal one and nothing more—just two parallel lines of trees farther apart than usual. No, there is meaning and expression in every part of it. It is most attractive in itself if regarded simply as an avenue, but it is further replete with interest by the objects to which it leads and others which open into it. At the bottom is a fountain, bold and elegant in design, with an expanse of turf around it in fine proportion to its size. At the top a temple, and at intervals along the sides groups of statuary and openings affording views of the rosery and lake; groups of shrubs and other important features all attracting the eye, so as to afford a continuous and pleasing variety.

The temple standing at the top forms a shrine for an exquisite group of statuary in pure white marble, by Adams, of the Lady of the Lake and her dog "Brave Lufra." The attitude of Ellen is wonderfully natural and full of grace; her face wears an air of abstraction and deep thought, a Rose has fallen from the hand which hangs listlessly by her side, and Lufra with uplifted paw and pleading gaze vainly strives to attract the attention of his mistress. The work is the conception of a master mind, the execution that of a clever artist. The building of white stone is itself an elegant and costly one, and its interior is beautifully tinted and relieved with delicate tracery, the whole forming a most graceful tribute to the genius of Sir Walter Scott, and is a commanding and most important object in this beautiful place.

A splendid specimen of the Mount Enos Fir, quite 50 feet high, is worthy of especial note. Very many other kinds are evidently at home here, but a detailed account of them is uncalled for.

Alterations and additions are being made to the two kitchen gardens, and considerable additions are also being made to the glass houses. A range of vineries contained some good Grapes, and a glazed Vine border betokened high culture and careful tending, which indeed were evident everywhere.—EDWARD LUCKHURST.

## NOTES AND GLEANINGS.

WE are authorised to announce that the GREAT FRUIT SHOW of the Royal Horticultural Society, which is to be held on the 10th of November, will be open for two days; that on the evening of the first day the Exhibition will be lighted by gas, when the public will be admitted on payment of 1s.; and that the whole amount of the prizes will be paid in full, and not at the rate of 50 per cent. reduction, as was announced in the early part of the year.

WE have received Bulletin No. 2 of the INTERNATIONAL HORTICULTURAL EXHIBITION of 1877, which is to be held at AMSTERDAM, and it is accompanied by a "Project of Programme" of the vegetable products which are to form part of the Exhibition. This will not be the least interesting part of it, seeing it embraces all the most valuable of the vegetable products used for food, and in the arts, manufactures, and medicine, such as cotton, tobacco, Peruvian bark, madder, indigo, sautehouse, and gutta serena; fats, including fatty oils, etheria (essential) oils, substances used for paper, cereals, Catechu, Vanilla, Rhubarb, and Sarsaparilla.

THE first Show of the Hull, Yorkshire, and Lincolnshire POMOLOGICAL SOCIETY will be held at Hull on Tuesday and Wednesday, October 26th and 27th.

THE MADRESFIELD COURT GRAPE, which in some places has cracked its fruit, is this year in splendid condition in the cool vinery at Chiswick. The berries may be called enormous, and the colour jet black with a fine bloom. It is well to know, however, that this fine Grape requires a little heat in cold wet autumns like the present, for if there is too much moisture in the house the berries mould and drop. The bunches at Chiswick are quite a sight, and the berries have never shown any sign of cracking.

WE have received through the kindness of Sir William Bagge of Stradsett Hall, Downham Market, TWELVE ACORNS of



remarkable size gathered from a tree, the average crop of which is very little less in size to those sent. They are from the common Oak (*Quercus pedunculata*), and measure 1 inch and seven-sixteenths long, and 8 inches and three-eighths in latitudinal circumference. The aggregate weight of the twelve acorns was over 6 ozs.

— We have received from Messrs. James Carter & Co. fruits of the GREEN GAGE TOMATO grown under ordinary cultivation at their seed farms. The fruits were perfectly ripe, of an orange-yellow colour, and their flavour when cooked was excellent.

— MESSRS. CARTER & Co.'s ROOT SHOW is to be held in November in the Agricultural Hall, Islington. Turnips, Potatoes, and Mangel Wurzel are included. The prizes are numerous and liberal.

## NOTES ON VILLA AND SUBURBAN GARDENING.

**HYACINTHS AND OTHER BULBS.**—Perhaps there is no flower more sought and made more of in a decorative point of view than the different sorts of bulbs. The easy and inexpensive process in the matter of treatment necessary to bring them to perfection, and the certainty of flowering them finely, have doubtless been stepping-stones towards the ever-increasing sale of enormous quantities yearly. This being so, coupled with the undoubted fact that the number of amateur growers increases yearly, it may be well, now that the season has come round, to devote a few notes to their interest. Of course I assume as being well known that these bulbs can be well grown in glasses, pots, or pans, and in beds in the open ground. In glasses they should have been put in some time ago if wanted early, because they will not bear the forcing those grown in pots will; but for later flowering glasses may yet be used for them.

Although the season for potting Hyacinths, Tulips, Narcissuses, Crocuses, &c., extends to the end of November, yet it is best to get them in a month earlier if possible, especially if they are to be forced early; for instance, I want some flowers of the sweet little white Roman Hyacinth, and one or two other colours by Christmas. These have been put in sometime, while the general lot will be potted in a few days. I do not lay much stress on any particular mixture of soil for them, because I have tried several, and for ordinary purposes I do not see much difference. Rather would I say to new cultivators, Go where you can obtain well-ripened weighty bulbs, and let them be put in at the proper time; let them have ample time for rooting in the soil before the bulb shows a leaf. This applies to all sorts; and a soil in which they do as well as any, and which is likely to be obtained easier by our amateur friends, is loam and sand, adding one-third leaf mould to the quantity of loam got together; drain the pots well, and pot rather firmly, so as to keep the bulb in its place. If the soil is heavy do not pot so firmly; and if any of the bulbs have started into growth at the top, and are somewhat soft in consequence, append a mark to it, and place the bulb in a little silver sand when potting, and let such as this be the last to take in for forcing, and it is a question if they ought to be forced at all.

As well as Hyacinths and Tulips there are Narcissuses, Crocuses, Snowdrops, Jonquills, Scillas, Grape-Hyacinths, Solomon's Seal, and Lilies of the Valley, and some others, may all be potted in the same way and at the same time, and, where there is no special convenience nor any special object in view, be treated alike—that is, after potting stand them on a bed of ashes, cover between and over the pot with a foot thick of the same material, marking each kind with a long label, so that when a few pots are wanted out there will be no difficulty in finding them. Now in case any fancy baskets or pots, stands or vases, are planted with them, a coal-ash bed will not be the proper place to use, but they may be placed in a cellar on clean boards, and if not in the dark be made so by a covering of some sort. These must be looked to with regard to water, the soil made moist after potting, and the bulbs allowed to become dry before coming up, or it is likely to induce mildew and decay in the bulb. Those outdoors will need no water, as from the dampness of the ashes this will be sufficient. In cultivating bulbs of this kind when they are being grown under glass water is a special need. The roots of most are abundant and fleshy, the spike of bloom generally large, and needs plenty of water, and, after the spike appears, liquid manure twice or thrice a-week will benefit them.

We now come to the bedding system of growing Hyacinths, Tulips, &c., for which purpose there are distinct sorts cheap and good. The beds should be prepared for them as soon as it is convenient for the bedding plants to come off, and the bulbs planted before severe frosts come on. They will do well if the ordinary soil of the bed is dug or trenched deep, adding 4 inches or so of rotten manure, placing it about a foot under the surface, the bulbs planted in rows; and it will be no harm, but likely do good, if a little sand is distributed in the bottom

of the hole or drill. Make each bulb firm, and cover over carefully. They may need some protection in winter; but I should like to see more town gardens planted with bulbs, also the windows of streets more frequently decorated with them. The balcony boxes should be planted with two or three colours, also room vases of the more substantial kind, in which these things thrive amazingly; but as a rule the single Hyacinths do best both for early forcing as well as outdoor culture. Unnamed bedding sorts can be bought in mixture, as so also can Tulips, &c., and I think a little cheaper than others, which, though they are not to be depended upon in securing accurate placing of the colours like named sorts, they are most useful for a fair display of bloom and for cutting purposes. Any respectable nurseryman's catalogue will afford information as to colours named or unnamed.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

We much regret to hear that Mr. Douglas is too unwell to contribute his notes this week.

## HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

JERSEY.—Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.  
LOUGHBOROUGH.—November 15th and 16th. Mr. W. Pallett, 55, Baxtergate, Sec.

## TRADE CATALOGUES RECEIVED.

Thomas S. Ware, Hale Farm Nurseries, Tottenham.—*Catalogue of Florists' Flowers, Roses, and Climbing Plants.*  
Sonntag & Co., Seed Merchants, 614, Merchant Street, San Francisco, California.—*Catalogue of Shrub and Evergreen Tree Seeds.*

## TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

GRASS TERRACES (*J. P. of York*).—The wall ought to be next the gravel terrace if you have a wall at all appearing above ground, hence we suggested your having a sunk fence or a tall fence as the boundary line at the base of the slope. The plan shown in your sketch would have a good effect looking from the house; but whether the outer wall as the boundary of the third or second grass terrace would be an objectionable object when looking towards the house when approaching it from a distance, is a matter which you alone can determine. If it will not be an eyesore we see no objection to your plan being carried out, and we should not hesitate to carry it out, especially as you by present arrangements are debarred views of the valley or scenery around. The middle or first grass terrace may be twice the width of the others.

HEDGE OF ROSEMARY AND LAVENDER (*Edward Liddell*).—Slips or large pieces slipped off from whence they proceed may be inserted two-thirds their length in the ground and firmly at 9 inches distance apart. It may be done now, or preferably in March or early April. Light sandy loam is the most suitable soil; and if you have not plants by you we should sow seed early in April in rows a foot distance apart, and the seeds about an inch distance apart, thinning to 9 inches. The seeds should be covered about three-quarters inch deep. You will need to protect from rabbits.

FORMING GRAVEL WALKS FOR KITCHEN GARDEN (*Senex*).—You will need to form a foundation for the walks 6 inches deep of any rough material you may have at hand, as brickbats, stone, or large gravel, and this should have the surface covered with finer rubble, or at least all irregularities should be filled-up, forming the surface roughly, and then covering it with finer material. We presume you can obtain ashes, and these in a dry state should be formed into a mortar-like consistence by mixing with boiling coal tar, and this should be laid on the walks about 8 inches thick evenly, and to the required surface, and sprinkle over it the small granite chippings, and let it be cool and will bear a roller rolled thoroughly, by which the granite will become part of the walk, and will wear capably. The walks thus made will last many years, and no weeds will grow on the walks. You will need a tile, or preferably a stone, edging to the walks.

PLANTS FOR WINTER BEDDING (*Mary, Dublin*).—You could not have anything better than Wallflowers, variegated Arabis, Violets, variegated Kale, crimson-leaved Beet, Golden Feather Pyrethrum, Daisies, the Aucuba-leaved being very fine; and Primroses in variety.

STRAWBERRIES (*H. B.*).—For general purposes there is no better Strawberry than *Vicomtesse Hérisart de Thury*. As to whether the plants planted out in February will bear fruit the same year or not, that will depend on their strength and the soil. If good plants they will produce some fruit.

**VINE ROOTS DISEASED** (*A Subscriber, North*).—We have no doubt whatever that the disease is due to the pernicious nature of the subsoil, and we are the more convinced of this by the fact that other vines in the district are similarly affected. Four years ago we witnessed vines precisely in the same state—that is, the bottom roots died, and it was only by the emission of surface roots that the vines were supported. In the summer the foliage flagged, and the house had to be shaded, and the few surface roots were fed by a top-dressing of manure and copious supplies of water. In the autumn the vines were taken up and all the lower roots were dead, the surface roots being fresh and healthy. The lower portion was cut off just beneath the surface roots, and the vines were cut down and replanted, first, however, removing the subsoil, concreting and draining the border, and placing in prepared soil to the depth of 2 feet. The remedy was complete, and the vines which were nearly dead by the loss of their lower roots have since produced grapes which have seldom been surpassed for size and quality, and no better grapes have appeared in Covent Garden this year than the produce of those vines. We can only advise you to adopt the same treatment, and we believe you will obtain good grapes. Unless you remove the subsoil your vines will never be satisfactory.

**FIRST-PRIZE DARK PLUM AT STAMFORD SHOW** (*O. E. Bracebridge*).—We are informed that it was the Gollath, and was exhibited by Mr. Ewart, Apethorpe, Wansford.

**FERNICE SEEDS**.—"H. C." and others would be obliged by being informed where these can be purchased. They would pay for being advertised.

**BOTANICAL TERMS**.—CRYSTALS ON GRAPES (*J. W.*).—Henslow's "Dictionary of Botanical Terms," published by Messrs. Groombridge. A saturated solution of alum will deposit crystals on plants.

**GATHERING PEARS** (*R. H. F., York*).—There is no special time for gathering any Pears. Pears are fit for gathering when their stalk parts from the spray if they are raised a little above a horizontal position. Store them in single layers in a cool dark room.

**FERNS**.—VINES (*E. J. S.*).—We stated that we could not name the Ferns because they had no spores on them. Any queries about vines will be answered as soon as we receive them.

**CAMELLIAS CASTING THEIR BUDS** (*A. H. E.*).—We should attribute the casting of the buds to the check consequent upon the potting just prior to placing outdoors, and this it seems also entailed loss of leaves, and a second growth, resulting we are not surprised at the first buds falling, but cannot account for those on the second growth falling, unless it be from the drier atmosphere of the house, the buds not being sufficiently developed, nor the wood ripened. Nothing that you can do now will save the buds from falling; but by careful watering through the winter, and by having the buds well formed before placing outdoors, or better not at all, keeping in a cool airy house and shaded, a recurrence of the evil may be avoided.

**BULBS PLANTED-OUT IN GREENHOUSE** (*B. B.*).—They would succeed admirably, and *Lilium auratum* and *speciosum* vars., with *Sparaxis*, *Tricoma*, and similar plants would answer. *Geraniums* would not do until after March, but *Mignonette* would do soon early.

**CLIMBING PLANTS FOR CONSERVATORY** (*Rob Roy*).—*Bignonia jacinthoides* splendens, *Mandevilla suaveolens*, *Passiflora Imperatrix* Eugénie, if moderately warm, or if cool, *P. Comte Nesselrode*, *Taenosa Van Volxemi*, *Habenaria fascicularis*, and *Bignonia Tweediana*; and if you have a north roof *Lapageria rosea* and *L. alba*. The *Lapageria* does best in fibrous rough peat, and requires extra drainage, as the watering is required to be very liberal. All the others succeed in a compost of three parts fibrous loam, and a part leaf soil, with half part sandy peat, and the same of old cow dung and sand. They do very much better planted-out in borders than grown in either pots or tubs.

**CLIMBERS FOR UNHEATED GREENHOUSE** (*B. B.*).—The following, though not climbers, would, trained to wires, answer: *Oenothera floribunda*, *Chimonanthus fragrans*, *Eugenia Ugni*, and *Pittosporum Tobira*; or climbers *Cappifolium latum*, *Clematis Henryi*, *Jasminum revolutum*, and *Lardisbala biternata*. *Solanum jacinthoides* and *Passiflora corallina* would also succeed.

**PEARS GRAFTED IN SPRING** (*W. W.*).—Remove the bandage at once, and prune when the leaves have fallen, heading-back to about a foot. They will not require any protection in winter, for they are hardy.

**OUTDOOR VINES** (*F. L.*).—Count the first eye at the base of the shoot, and cut at the one next above it. Do not take out the eyes now or at pruning, but leave all and rub off the shoots you do not want. Dissolved bones will answer, but are not so lasting as crushed ones, and the way you propose applying them and the stable litter is right.

**GRAFTING PEAR TREES** (*F. L.*).—The pyramid and espalier trees you wish to graft with more desirable kinds should have the heads cut off at the time or a short time only before grafting. Whip-grafting we consider the most desirable mode, and you may cut off all the branches to within 6 inches of the main stem, and graft all those as well as the leader. Make the surface smooth by paring with a knife after sawing-off the branches. Place the scions on the upper preferably to the under side of the branches. The scions should be removed from the trees before their buds begin to swell, and have their lower ends inserted in moist soil. The scions will have three or four buds in about 4 inch of shoot, and you will hardly be able to have three buds in a 5-inch length, with one bud near the lower end, and the scions will need to have one, better two buds, clear of the grafting-wax or clay. The scions are not to be dipped into the grafting-wax, but securely bandaged with a ligature of mastic, and then apply the wax so as to effectually exclude air. Graft when the Pear trees generally are commencing to grow, or from the middle to the close of March. We do not know the grafting-wax to which you allude, but the following given in the "Year Book" has the advantage of not being required applied warm:—"Yellow wax 1 lb., turpentine 1 lb., Burgundy pitch 8 ozs., mutton suet 4 ozs. Melt all together and mix thoroughly, and leave them to cool. Form the mass into small balls, as it will not stick to the fingers, and use them when opportunity offers." For your purpose we consider the usual clay covering would answer and be cheaper.

**HEATING GREENHOUSE, &c.** (*B. O. L.*).—We do not approve of your proposed mode of heating, for though water will circulate on a level below that of the boiler, it is always sluggish, and would in your case we think boil over or be blown-out in the cistern or tank from which the supply of hot water is to be drawn for domestic purposes. The return pipes should be on a level with the boiler above rather than below the return-pipe of the boiler. In your case the majority of the piping is below the boiler and almost all return, and unless you can lower the boiler to the level of the pipes in the greenhouse and

boothouse we should not advise its adoption. Could you not have the boiler in the greenhouse or in some place adjoining? The plan, other than the level, would answer well, the boiler from the dimensions given is capable of heating the piping required. It appears to us you would have too little piping and a great deal of it useless, being taken-up in connection between the houses; but as you give no dimensions we may be in error on that point.

**WINTERING GERANIUMS** (*M. W.*).—Not having a greenhouse you may safely winter the plants in a room from which frost is excluded, and we can only account for your former failure by being in a room too cold. Now if you will take-up the plants and strip from them every leaf except any at the points of the shoots not larger than a shilling, and trim-in the roots so that they may be potted in 4-inch pots in moderately moist, rather light, and moderately rich loam, giving no water, or only a little to keep the shoots from shrivelling, until March, and admitting air freely whenever the temperature of the room is over 50°, and not so as to lower below 45°, avoiding a draught, and not allowing the temperature to fall below 35°, better 40°, for safety, we guarantee greater part of the plants will survive the winter; and if you cut-in any irregularities of growth in March, and water as required afterwards so as to keep the soil moist, we consider you will have nice plants for planting-out in May. Another plan is to have some wood boxes made of half-inch deal, planed on the outside and edges for neatness, the length and width of the window-sills, and 4 inches deep, the bottom being bored with about half a dozen holes half an inch in diameter, and a red hot iron run through each, the holes being to let out superfluous water, and over each of inside may be placed an oyster shell or a piece of pot, and then an inch of the sittings of the soil used for filling the boxes, which is best of sandy loam without admixture. Place a little soil over the rubble, introduce the plants all the leaves stripped off, and the roots cut-in to about 3 inches of the stem, placing them closely together, and fill-in between and over the roots, leaving about half an inch from the top of the box to admit of watering. These boxes placed in any window of a room from which frost is excluded will winter safely, treated as above described. The box will rot or damage the window-sill if you do not place under each a piece of zinc, and if this be turned-up at the edges no water can possibly come upon the window except of neglect. The plants may be potted-off from the boxes in March, the plants grown-on in frames or elsewhere, as we have seen boxes are no gas from the boxes in May, and do remarkably well. Where the boxes are no gas must be consumed, or the plants will suffer. A third plan is to strip the plants of their leaves, not to trim-in the roots or only any very straggling ones, and to place the plants buried in dry sand in a cellar, from which they should be taken in March, potted, and grown-on in frames. The plants should be cut-back in March or early in April if they are straggling in growth, so as to form bushy plants.

**WINTERING FUCHSIAS AND HELIOTROPES** (*Idem*).—Without a greenhouse lay the plants on their sides in front of a south wall, and before severe weather, taking care the plants are not frosted, place in a cellar from which frost is excluded and keep dry, but the wood is not to be allowed to shrivel from overdryness. In March or April remove the plants to a window and prune, re-potting when the young shoots are about an inch long. Outtings of *Heliotropes* should be of the young wood, the points about 8 inches long inserted in sandy soil, and placed in a cold frame if in summer, or in spring and autumn, affording bottom heat, shading from sun.

**BLACK HAMBURG GRAPES DEFICIENT IN COLOUR** (*M. T.*).—The causes of the grapes being red instead of black are probably defective root-action, not having the bunches well shaded by the leaves, and insufficient ventilation. A good supply of weak tepid liquid manure during the time of colouring, less thinning of the leaves, and more air, are the obvious remedies.

**SELECT FRUIT TREES** (*W. Seymour Fraser*).—We have selected and set down the varieties in the order of ripening. *Apple*: Irish Peach, Kerry Pippin, Gravenstein, Golden Winter Pearmain, Cox's Orange Pippin, Golden Bellecote. *Plums*: De Montfort, Transparent Gage, Cox's Golden Drop. *Cherries*: Black Tartarian, Duchesse de Pallan, Mary.

**SEEDLING CYCLAMEN CULTURE** (*H. A.*).—The seedlings sown about two months ago pot-off singly in small pots, and as you have only a cold greenhouse, place them on shelves near the glass and keep them moist during the winter. In May move them to a cold frame, and there keep them duly watered, but rather sparingly in June and July. In August they may be shifted into larger pots, and being kept rather moist, close, and shaded from bright sun they will start into free growth, and should be moved to the greenhouse in October, placed on shelves near the glass. Keep them moist, but not overwatered. They will flower during the winter and spring. Frost must be excluded. The soil most suitable is three parts light fibrous loam, one part each leaf soil, sandy peat, and silver sand, well mixed, with good drainage.

**SITE FOR FRUIT-BOOK** (*J. E.*).—Of the two sites submitted to us we should prefer that of No. 1 from its northerly aspect. The slight warmth it would derive from the dining-room fire on the opposite side of the wall will probably exclude frost. No 2 would answer, and appears to give the greatest accommodation for fruit shelves, but it does not appear how you will be able to keep out frost in severe weather. There is also the same objection to No. 1, the heat from the wall not being sufficient in severe weather to maintain the temperature in the fruit-room above freezing-point, and the heat at other times may cause too dry an atmosphere, and so cause the fruit to shrivel or unduly ripen. We have, however, a room similarly situated as No. 1, and it answers very well, but we have a window, or rather skylight, and by raising this we can admit air, having a shutter to insure darkness and keep out frost.

**LATE-KEEPING DESSERT APPLE** (*W. R.*).—You cannot have a better than the Sturmer Pippin. Add to your Pears Beurré Hardy.

**NAMES OF FRUITS** (*Z. A. B.*).—1, Beurré Diel; 2, Brown Beurré; 3, not known; 4, Easter Beurré. (*Harvey*).—1, Forelle; 2, Calabrese Grosse; 3, Beurré Diel; 4, Fondante de Noël; 5, Beurre Rose; 6, Beurré d'Alsace. (*R. Calvert, Clapham*).—1, Bedfordshire Foundling; 2, Kewick Codlin; 3, Hawthornden; 4, Dutch Codlin; 5, not known; 6, very like Jargonelle; 7, Marie Louise; 8, Winter Nalis; 9, not known; 10, Beurré Rose; 11, Louise Bonne of Jersey. (*O. P.*).—3, Dutch Codlin; 4, Beauty of Kent; 5, Aston Town; 6, Suffolk Thorn; 7, Thompson's. (*R. B. L.*).—1, Green Tiffin; 2, Braddick's Nonpareil; 3, Baxter's Pearmain; 4, not known; 5, Hoary Morning; Pear not known. (*T. A. Bickley*).—We cannot name Peaches unless we know the characters of the leaves and flowers. (*G. F. Barrell*).—1, Émile d'Hayot; 2, Beurré Sterckmans, a fine specimen; 3, not known; 4, Striped Beaufort; 5, Beurré Diel; 6, Uvedale's St. Germain, small specimen; 7, Millot de Nancy. (*John Emerson*).—Delaware. The smaller is Nonesuch.

## POULTRY, BEE, AND PIGEON CHRONICLE.

## "POT AU FEU" FOR CHICKENS.

At this season of the year especially all those who have gardens can do much for their fowls, as the refuse from the vegetables now is always considerable. We had the pleasure of going over an establishment the other day where an immense number of chickens and Ducks are reared annually for market purposes, and we found there that vegetables were introduced to a great extent among the cooked foods for the fowls. We know that many of our readers are very ardent poultry lovers, but they have not the means, opportunities, or wishes, many of them, to incur the trouble and heart-aches of exhibiting; still they are great producers of poultry meat as an article of food, and so to them a few hints on economising their foods may be valuable.

We are great advocates for cooked food, as we are convinced it goes much further and does more real good to the birds. We were originally indebted to Mr. Wright for pointing out to us the value of the food being cooked, or at least partially so; and since we put the plan into regular operation we have had every reason for knowing its benefit. The establishment to which we referred above possesses a large copper, and in this daily the *pot au feu* for the birds is prepared. All kinds of refuse vegetables are used—cabbage, celery, and lettuce leaves, the peelings of carrots, turnips, and potatoes, slices of beet and mangel wurzel, windfalls from the apple trees, and such miscellaneous vegetable produce are cooked in this copper.

When the mass is quite soft it is turned out and peppered with coarsely-ground black pepper, and seasoned quite lightly with salt. Then comes the mixing with the meal, which is changed every now and then. Fine sharps are always used, but this is mixed perhaps one week with ground oats, another with barleymeal, another with ground Indian maize, and so on.

Great pains are taken with the mixing, as much depends upon this, for if the food is sticky from being badly compounded or sloppy, not only would the birds not relish it nearly so much, but it would not do them one-half the good. It must be crumbly, and to render it so the meal should be gradually mixed with the vegetable compound with a strong spoon, and then when thoroughly mixed it can be kneaded with the hands into balls, and so distributed to the birds.

This may seem a long business, but if any keep several head of chickens, and go in regularly for producing table fowls, we are convinced they will be amply repaid by making this warm breakfast for their birds. We make a great point of its being warm, as in the cold winter months the number of eggs is thus greatly increased, and the birds always look fresh and healthy. Fowls fed regularly on this soft food in the morning, if they have a free run, will not need more than a good feed of whole corn in the late afternoon or evening.

Birds which have to undergo the wear and tear of being exhibited would hardly find this compound satisfying enough; but we do not prescribe for them, because their mode of living must depend upon the tact and experience of the manager; but we recommend this "*pot au feu*" to those who have a paddock or orchard for their birds to run in, and want to economise their food, making use at the same time of vegetable matter which would otherwise, perhaps, go to the garden rubbish heap.

The quantity to be made of this warm food will depend upon the size of the establishment, as either a small saucepanful can be made on the sitting-room fire for a pet pair of Bantams, or a copperful boiled-up for a farmyard full of fowls.

We do not only recommend this compound to economise food, or for using-up the green stuff, but because a mixture of vegetable food with the meal is of itself the greatest help to keeping birds in healthy and good condition. To those birds which live in a back yard or bare run all the year round a boiled compound of meal with some vegetables given warm we would especially recommend, for it will do them twice as much good given so than if they were always fed on mixed soft food or whole grain. We would not, of course, use this as a permanent diet throughout the year, but every now and then leave it off for a few days, and so by giving the birds a change of food they will return to their vegetable compound with greater avidity.

Some poultry-keepers have no garden, and only keep their birds in some few feet of back premises. To these birds our vegetable compound will be the greatest boon, for they can have boiled up for them the refuse leaves from the vegetables in household use, and the apple and potato parings, which in larger establishments, perhaps, would be considered to belong to the pigs rather than to the fowls. Only those who have tried it can realise the advantage of mixing green stuff with their chickens' food. We recommend all amateurs to take the matter seriously into consideration, and not to sanction the waste of a

cabbage leaf or a potato peeling, but to have them all thrown into the "*pot au feu*" of the chickens.—W.

## SPECIAL CLASSES AT THE CRYSTAL PALACE GREAT NATIONAL POULTRY SHOW.

MANY very erroneous opinions have been formed upon the nature and relative value of the two cups offered by the Baroness Burdett Coutts at the above Show, and as my name has been forcibly hinted at in connection with the subject through one of your contemporaries I will make a few observations upon the new classes.

The Baroness was anxious to support the Show, but preferred that her prizes should promote some humane object. The question being referred to me, I suggested the framing of the special prizes as they now appear in the schedule. The first one, for Undubbed Game, has called forth strange observations, because it was announced "that the Baroness wished to notify that this prize was directed against the growing tendency to cock-fighting." Your contemporary with one statement would try to make his readers believe there is little or no cock-fighting going on in this country, whilst with another statement he acknowledges the fact. Moreover, the Baroness's advisers are in possession of facts of a startling nature, which may sooner or later be brought to light; therefore the less said upon that subject just now the better.

Then, as to whether there is any cruelty or pain in the operation of dubbing, there can be no two questions. As there is considerable loss of blood, and during the healing process the birds lose considerably in condition; and not only condition, for the slicing off the comb, the shearing off the wattles, and the carving or slicing away at the skin of the face and throat, frequently alters the bird so much that he cannot be recognised—not even by his crow, for that also is mostly affected by the barbarous misuse of the scissors. Such being the case, I think the Baroness's wish is so far carried out as regards the question of cruelty.

Relative to the second cup, I am thoroughly surprised that so much misconception should have arisen. I considered the value of such a class would have been immediately apparent to any practical breeder. The idea of this class was suggested to me by the most successful and respected breeder of Brahmas, Mr. Horace Lingwood. His remarks to me are, "I believe you would find classes fill well for birds that are vulture-hooked, and as a trial it might be for all Asiatic breeds;" and he further dilates upon the intrinsic value of such birds for stock purposes.

Any person who has stock of his own, and can breed winners of these varieties, must acknowledge the fact that he is obliged to keep birds on his hands which are wholly unfit for showing, but which are invaluable for his breeding purposes; but by the class now open he can exhibit them, and as Mr. Lingwood says, "the public will be much amused," and many breeders of intelligence may receive instruction by viewing the breeding stud of successful exhibitors.

Why your contemporary should have taken such extreme views of the matter is best known to himself, for I have not found any person who does not feel that his observations are insulting to an extent wholly unwarranted. \* \* \*

In conclusion, I trust you know sufficient of me after so many years' intercourse to believe that I could not have had the intention either to "insult" or "disgrace" any person by the simple way in which this famous poultry class is worded. I feel convinced that the generality of the visitors will be wise enough to judge of the birds and their owners in a more common-sense and practical light than has been suggested, and I have no doubt there will be many magnificent birds shown fully vulture-hooked, and that they will in many instances change owners readily.

The class will be specially for vulture-hooked and other untrimmed birds as originally proposed; and as there are some exhibitors who do not scruple to pluck their birds, this class will at least give them the opportunity to show their birds honestly, and to meet other good vulture-hooked birds from exhibitors who would scorn to pluck their birds. I need scarcely add as a reminder that birds will not win which are not vulture-hooked.—F. CROOK, *Vine Cottage, Ferry Vale, Forest Hill, S.E.*

## ENTRIES AT OXFORD.

We have been favoured with the result of the entries at this Show, and are pleased to find they are so many. There are nearly fourteen hundred entries in all, which is extremely good considering the scarcity of chickens and the Alexandra Palace meeting so nearly clashing with it. Nearly every exhibitor of note is represented. The entries in the sale classes are very numerous, and the specimens will, to a great extent, be from the yards of well-known exhibitors. We will give a few of the entries in the various classes, as they may be of interest to exhibitors.

Dorkings muster very well, every class having more entries

than last year, the Coloured variety alone numbering twenty-eight pens. Spanish are more in quantity than last year, for this season there are twenty pens of chickens entered. In Cochins there is a falling-off, especially in Blacks and Partridges, for they only number fifteen pens in those two classes against thirty-nine in 1874; Buffs and Whites, however, make-up for them with two capital lots as regards entries. Brahmas, Dark and Light, number twenty-nine and thirty-four pens respectively. Game are well represented, for there are over 190 pens. We always find a crack lot of Game chickens here, and this season's bids well to be no exception. Of Hamburgs there are about ninety pens, the largest class being Golden-pencils with twenty-six entries, and Silver-spangled with twenty entries. In Polands we find a vast improvement, for against ten pens of last season we find twenty-five this, the Blacks having nine out of them. Houdans make the largest class in the Show without the sale classes, for of this one breed there are close on fifty pens entered. While Crêves have twenty-one entries against fourteen in 1874. Malays, only seven pens are entered in 1875 against seventeen in 1874. The Fancy classes muster fairly. We find Americans have twenty-four entries, Silkies eleven, and the Variety class nine. Bantams promise to be good and the competition severe. There are forty pens of Game Bantams—seventeen of Blacks, eight of Bebrights, and fifteen in the Variety class. Waterfowl have good entries, and we hear the Indians (thank you, Mr. Bainsbury) have the largest class of all the varieties. The Sale classes number close on two hundred pens, and doubtless there will be many a plum to be picked out of that pudding.

Pigeon-fanciers have responded well to the extra money and cups given, for the entries are splendid in most classes, and many amateurs have sent here who do not send to other shows, which is a compliment to Mr. Salter's management. The proportion of entries in all classes is good, the Carriers, Antwarps, and Dragons being, perhaps, the best. We expect it will be a fine Show, and can confidently recommend visitors who have never been to Oxford to make this the occasion for doing so.

#### ALEXANDRA PALACE POULTRY SHOW.

THIS Exhibition opened at noon on Tuesday, and closes this evening. The quality of the birds is wonderfully good, and the arrangements extremely satisfactory. We shall content ourselves this week with giving a few general remarks, and next week shall furnish a full critical report of all the classes. The prize list itself, which we furnish, shows us that many of the good names have at last come to the front, and that the quality consequently is above all previous chicken shows of 1875.

*Dorkings* are very good, but with the exception of the Coloured make wretchedly small classes. In Coloured cockerels Mr. Hamilton's bird looks very well indeed. All the other winners are good, the fifth being a rose-comb, square in body, but crooked in toes. In pullets a large square bird is easily first, but her comb is not promising, though as yet quite unsprung. On the whole here is a good lot of pullets, and winning was not easy. In Silver-Greys the pullets are much the best class, and White pullets again are superior to the cockerels. Cuckoo are good, as nice a lot as we have seen for many a day, and winners seem well placed.

*Cochins* are not large classes, the Buffs, however, being much the best in numbers. We are afraid in these classes, as in many others, several hens are doing duty for pullets. It is a most disgraceful proceeding to win in this way, and we do beg Judges will particularly observe signs of this grievance and check it immediately. We will not here individualise suspicious cases, but if we see the birds so winning again we shall know how to proceed. We did not quite like some of the awards in the Cochins, but, perhaps, taking the lot there was not much wrong. The winning Buff pullet is very mottled in colour and high in comb, but also a fine-shaped bird and well stuffed. Cockerels are good, but we liked one or two birds quite as well as the winner. Partridges also good, the first cockerel especially fine. In Whites only the noticed birds in cockerels are superior, but the pullets are a fine lot. Black cockerels capital, the winner one of the best we ever saw. In pullets we liked Mr. Frank's highly-commanded bird much the best. The winner is red in neck, and had not a bit of bloom about her, besides being fearfully hocked; but we noticed a great deal of hock throughout all the Cochins classes.

*Brahmas* make very grand classes. The sale classes here, too, are especially noticeable for a good bird or two. Mr. Lingwood does walk his cockerels in; they are three grand birds, but our choice was for his third. Pullets are a good class, and it was a difficult one to judge. In Light cockerels we preferred the second for symmetry, or the fourth (Dean) for general shape; but the winner is a good bird. In pullets the winner is well cushioned and perfect in points.

*Spanish* are good in numbers. We are glad there are so many chickens about, for we hear there is a large class of them at Oxford. A smart pullet won the cup. Mr. Chilcott's cockerel is a good one, and of greater promise even yet for future shows.

*French* brought good birds. The cup cockerel one of the most stylish we ever saw. Pullets were also very good. Crêves mustered well, and we thought the winners well placed.

*Hamburgs* are magnificent: Messrs. Fielding, Beldon, and Duckworth send most splendid teams. Winning was not easy, but we should have liked to have altered, perhaps, one or two of the cards; but more of this next week.

*Game* come to the front well, and many good chickens make their debut here. The winning Black Red cockerel is a beauty, and the same exhibitor's Duckwing cockerel a striking bird. We are sorry to learn he is ill, and was unable to be present at the opening day of the autumn season.

*Malays* make two good classes, and we cannot understand their shortcomings at Oxford, from the numbers and quality here present.

*Polish* are three wonderful classes. The cup goes to White-crested Blacks against the other colours. The pullet is the best we ever saw; she is nothing but a picture, but the cockerel wants more time. In Golden the third pullet struck us as being the best in markings, and in Silvers we admired greatly the lacing on the second cockerel's wings, but it is a splendid class.

*Leghorns* form pretty classes, the cup going to a very smart brown pullet in perfect bloom. The winning birds appear to be all good.

*Silkies* are the best lot we ever saw together. We were pleased to see perfection at last in all points—colour, feathering, crest, and claws.

The Variety class is charming; fine Cuckoo Cochins first, unique and very elegant White Polands second, and Sultans third and fourth. The Sailing classes are very large, and the bargains seem to be numerous. We cannot go through them, however, this week.

*Bantams* mostly make good classes. We are delighted to find the Game so good, for we had feared they were rather going-off. Blacks also make a nice class, and in Bebrights the winning pens are perfect gems. In the Variety class White Rosecombs are first and second, and White-booted third.

*Waterfowl* come well to the front, Aylesburys and Rouens being extremely good. The Blacks are good in numbers, but we must defer further comments till next week, as when we reached them the light was gone, but the first-prize winners looked large; if they are good in colour we shall rejoice to think size and colour may at last go together. Variety Ducks are very beautiful, and were very difficult to judge, we should say.

*Geese* and *Turkeys* are splendid. We never wish to see a better pair of White Geese than the winners were. Turkeys were divided as to sexes, which seems a most proper plan, and to answer here as far as the entries are concerned.

One word before closing this week to congratulate very much the Treasurer and Secretaries on their Show, which is, we suppose, the largest maiden poultry show ever held, and seems a success in every possible way.



**TUMBLERS (Any other variety).**—Cock—1 and Cup, H. Yardley. 2, H. G. Hamcock. 3, R. O. Fielding. *Hen*, R. Fulton. T. W. Townson, J. Baker, E. Beckwith (3).

**TUMBLERS (Any other variety).**—*Hen*.—1, R. Fulton. 2, J. Baker. 3, H. Heritage.

**BARS (Black or Dun).**—Cock—1, Cup, and c, R. Fulton. 2, M. M. Maynard. 3, J. Firth.

**BARS (Black or Dun).**—*Hen*.—1, H. M. Maynard. 2 and 3, R. Fulton. 4, W. J. Hyde.

**BARS (Any other colour).**—Cock—1 and 2, R. Fulton. 3, J. Firth. *Hen*, J. Walker.

**BARS (Any other colour).**—*Hen*.—1, R. Fulton. 2, R. W. Bryce. 3, H. Yardley.

**BARS (Black or Dun).**—Cock or *Hen*.—1 and Cup, J. Firth. 2, 3, and 4, Major J. H. Crier. *Hen*, R. W. Bryce, H. M. Maynard. c, P. H. Jones.

**BARS (Any other colour).**—Young Cock or *Hen*.—1 and 3, J. Firth. 2 and 4, P. H. Jones (3).

**JACOBIANS (Red or Yellow).**—Cock or *Hen*.—1 and Cup, G. & A. Manders. 2 and 3, R. Fulton. *Hen*, E. A. Seale, W. Woodhouse, J. Baker, E. M. M. Roys, J. Pyper. c, W. Woodhouse, E. M. M. Roys.

**JACOBIANS (Any other colour).**—Cock or *Hen*.—1, R. Fulton. 2, D. Combe. 3, A. A. Vander Meerch. *Hen*, D. Combe, H. Heritage, J. Frame, J. Baker. c, J. Frame.

**FANTAILS.**—1, Cup, and 2, J. Walker. 3, Rev. W. Serjeantson. *Hen*, J. F. Loveridge, Rev. W. Serjeantson. *Hen*, J. F. Loveridge; H. O. Bowman (3).

**NUB.**—Cock or *Hen*.—1, Miss F. Seaton. 2, J. Gardner. 3, W. Tedd. *Hen*, W. Tedd; W. Croft.

**TAUPEFEATHER.**—Cock or *Hen*.—1, Cup, and 2, R. Fulton. 3, J. Baker. *Hen*, J. E. Spence; J. Lister.

**OWL (English, Blue or Blue-powdered).**—Cock or *Hen*.—1, J. Thresh. 2, R. H. Unsworth. 3, J. Schwetzer. *Hen*, M. S. Temple, J. Schwetzer, H. Verdon. J. W. Ludlow, J. Gardner (3), L. Allen, H. Crosby.

**OWL (English, any other colour).**—Cock or *Hen*.—1 and Cup, T. G. Sprunt. 2, T. W. Townson. 3, J. W. Edge. *Hen*, E. H. Unsworth, J. Schwetzer, P. H. Jones, H. Verdon, E. Flansfield. c, M. S. Temple, G. Alderson.

**OWL (Foreign).**—Cock or *Hen*.—1 and 2, J. Schwetzer. 3, R. O. Fielding.

**MA (Fulton (3), G. Alderson, T. S. Stevenson, T. W. Townson.**

**TURBIT (Blue or Silver).**—Cock or *Hen*.—1 and Cup, R. Fulton. 2, E. T. Daw. G. Hardy. *Hen*, P. H. Jones (3), G. Alderson, G. H. Gregory (3), E. T. Daw, W. Townson, J. Baker.

**TURBIT (Any other colour).**—Cock or *Hen*.—1, C. A. Crafer. 2, T. S. Stephenson. 3, M. S. Temple. *Hen*, E. A. Seale (3), R. E. Horsfall, Miss F. Seaton.

**MASPIN (Black).**—Cock or *Hen*.—1 and 2, S. Hitchcock. 3, J. T. Herbert.

**MASPIN (Any other colour).**—Cock or *Hen*.—1, J. Baker. 2, J. E. Bowdon. 3, W. Tedd. *Hen*, E. A. Seale, M. Ord, W. Tedd, Powell & Crane, J. T. Herbert, Miss F. Seaton (3).

**RUNT.**—Cock or *Hen*.—1, T. D. Green. 2, 3, and 4, J. S. Price.

**ARCHANGEL.**—Cock or *Hen*.—1, P. H. Jones. 2, S. O. Betty. 3, T. W. Townson. *Hen*, A. A. Vander Meerch.

**ANTWERPS (Short-faced).**—Cock or *Hen*.—1, J. J. Bradley. 2, W. Gamon. 3, R. Brierley. *Hen*, J. J. Theobald, W. Gamon, J. W. Ludlow (4), J. Wright, M. Martin, W. Flavel.

**ANTWERPS (Homing).**—1, Col. Hassard. 2 and 3, W. S. Marsh. 4, W. E. Tegemeier. *Hen*, W. E. Tegemeier, Capt. G. Edwards. c, J. Wright.

**ANY OTHER VARIETY.**—1, G. H. Gregory. 2, A. & W. H. Silvester. 3, J. W. Ludlow. *Hen*, R. Fulton, H. Yardley. *Hen*, G. Richardson, J. W. Ludlow, H. Dwyer.

**SELLING CLASS.—Single Bird.**—1, G. Kempton. 2, J. Nichols. 3, W. Osmond. 4, G. Murphy. *Hen*, H. M. Maynard. *Hen*, N. Bargent, D. Young, H. Jacob. L. Allen, W. Nottage, H. Simpson.

**SELLING CLASS.—Pair.**—1, H. M. Maynard. 2, G. P. Pointer. 3, G. J. Avenell. 4, W. Osmond. *Hen*, A. Ward, D. Young, G. P. Pointer, G. J. Avenell.

**SPECIAL FLYING CLASS FOR HOMING BIRDS.**—Cock or *Hen*.—1, 2, and 3, W. E. Tegemeier. 4, T. G. Ledger. 5 and 6, F. Lubbock. *Hen*, F. Lubbock (3), W. E. Tegemeier, H. W. Crosse (3). c, G. Cotton, Colonel Hassard, W. E. Wills (3).

**JUDGES.—Poultry:** Mr. J. Dixon, Mr. E. Hewitt, Mr. J. H. Smith, and Mr. R. Teebay. **Pigeons:** Mr. T. J. Charlton, Mr. F. Hequiant, Captain Heaton, and Mr. T. H. Ridpath. **Homing Antwerps:** Messrs. C. Mills and C. L. Sutherland.

## DORKING CUPS AT THE CRYSTAL PALACE SHOW.

In reply to inquiries about the Dorking cups at the forthcoming poultry show at the Crystal Palace, I beg to inform you there was a printer's error in the first few schedules sent out. The intention is for cock or hen in their respective classes. I will reply to numerous inquiries upon the Baroness Burdett Coutts' cups in your next issue.—F. CROOK.

## NORTHAMPTON SHOW.

THE fourth annual Show of the Northampton Ornithological Society was held in the spacious Corn Exchange, Northampton, on the 18th and 14th inst.

In Pigeons, Pouters, cocks headed the list, the special prize for the best bird in the Show going to the first, a showy White cock, which was however closely pressed by a Blue Pied, which was scarcely as forward; the third was a Red. In hens a smart Blue was first, and White second, and Blue third, and the whole class noticed. In Carriers, cocks, first was a capital Black; second a Dun, good in beak, but wanting in eye wattle; third also a Black. In hens, first and second were very good, but the rest poor. Young Carriers had but seven entries, first a Black, and second a Blue, but strong smart birds. In Barbs, first and second Blacks, and third Yellow. All cocks. Tumblers were—first a most extraordinary Kite, second an Almond, and third a Red Whole-feather; very good Almonds and Agates very highly commended. Owls were a very good and large class, the first going to a very small Blue Foreign, most perfect in skull; second to a Blue English; and third to a neat little White Foreign. Almost all the others were mentioned. Turbits another large class, was one of the best in the Show—first a splendid Silver, second a Blue, and third a Black. Eleven other pens noticed. Jacobins a fair class, first a Red, second White, and third Red. Dragons

had twenty-five entries, and was about the best class in the Show, and two extras were awarded. First a Yellow; second Blue; extra second Yellow, not quite in hard feather, but of grand colour; third Silver with black bars; and extra third a Grizzle. Twelve others noticed. Antwerps numbered thirty and were a very good class, the winners were birds it would be impossible to improve upon. First a Short-faced Silver Dun, which we think won the cup at Bingley; second a Short-faced Red Chequer; and third a Long-faced Silver Dun of this year. If we mistake not all hard-feathered short-winged birds, and many others noticed. The Variety class was an interesting one, almost every pen being worthy of a prize. First was a Black Trumpeter; second an Isabel; and third a Spangled Ice; very highly commended, and highly commended Grey Frillback, and true Pigmy White Pouters.

In Rabbits there were 124 entries in seven classes, and considering the amount offered we believe this to be an achievement altogether unprecedented, but the great point was the quality, which as a whole we have never seen surpassed. In Lops there were twelve entries, and with one pen empty, the measurement being something extraordinary, and with not the least stretching the following were the results—first Fawn Doe, 23½ by 5 inches, perfect in form, condition, and colour, but the right leg being a little crooked lost this the extra for the best in the Show; second a Fawn Buck, 22 by 4½, good in all points; and third, a Fawn Doe; very highly commended a Grey Doe, 22 by 4½, and Fawn-and-white, 22½ by 4½, and Fawn, 22½ by 4½, and a Tortoiseshell, 21 by 4½. All the rest measuring well up the standard lengths. Dutch, as a class, were the worst as regards quality, only a few coming up to the required standard; first was, however, one of the most handsome Tortoiseshells ever seen; second a Black, good but rather large; and third a Blue-and-white, nice and pretty correct, but not in as fine order as we have seen it. Angora was a capital class, not so much for size as for quality and quantity of wool, and there was scarcely a Rabbit unworthy of a position. Himalayans were a tough lot, and it was most difficult to determine among the first six and between the first two, the colour of tail had to decide the point. Almost every pen was noticed, as were the Silver-Greys, of which there were twenty-three, and scarcely one not good enough to win a prize, and of these twenty-one were noticed. First a doe of massive size, fine condition, and unbroken silvering, and of the light shade so common of late; this Rabbit took the extra also. Second also a doe, of a shade a little more to our taste, fuller of ticking, but a little darker on head; third a doe of the lighter shade, but not in the same fur; very highly commended a very large buck, but broken in coat; several others running close in quality. The Variety class contained some good ones. First a Silver Cream, perhaps the best ever shown; second a grand Belgian Hare; and third a Patagonian. Many capital Silver Creams and Hare Rabbits being also noticed. The Selling class was only a moderate one, although the winners were very good, the first being a nice Belgian Hare; second a Tortoiseshell, but very thin and low in condition; and third a Silver-Grey.

The Cage Birds, in point of number of entries, were about on a par with those exhibited the week previous in the north of England. As might have been expected, Norwich birds were more numerous here. There was a slight falling-off in Belgian and Yorkshire birds. Messrs. Provart & Willis of Norwich, the great guns, especially in the "clear" classes at the late Norwich Exhibition, put in an appearance with some of their showy high-coloured birds, with which they were pretty successful, defeating Mr. Adams and Mr. Atherton of Coventry, and likewise Messrs. Mackley of Norwich, each of whom had been successful at Darlington. Throughout the Norwich classes the Clear, Even-marked, and Ticked varieties were very good generally, and the prizewinners carefully selected. With the decisions little fault could be found, excepting a trifling blemish in the way of an even-marked specimen or two, such as a dark feather showing in the portion of the wing which should be clear or light, and in another instance an apparent deficiency of tail feathers. But the best should be the best at all times, and, to sum up the lot, we think the best were in their proper places. Crested Buffs (which far surpassed the Yellows) a very good class, so also were those for Silver-spangled Lizards, Cinnamons, and Mules. The first-prize Jonque Lizard was not our choice, being miserably deficient of good spangling, although good in form. British and foreign birds beyond an average kind. In the former class three capital Thrushes of the proper size, plumage, and condition were shown. Two in particular (231, first prize, and 280, v.e.c.), of which we could see little difference. To say that Mr. Wright's Thrush was not fully deserving of the honour of a first prize would be unjust on our part; but we cannot help remarking that an extra prize was due to Mr. Newbold's Thrush, a winner of several previous prizes, one amongst which was a first at the last Crystal Palace Bird Show, when a dozen birds competed in the class. Amongst the foreign birds were a couple of King Parrots, Grey and Green Parrots, Parakeets, Cockatoos, Love Birds, Java Sparrows, and a Madagascar Bishop. With



the awards we fully concurred. The King Parrot (261) won easy with as much ease as the Cockatoo (255) defeated the others. Still there was a third prize and an extra third awarded. The birds looked quite showy throughout the Corn Exchange, which is one of the best-adapted rooms in the kingdom, being light and the stages well set out by a Committee who deserve all praise for their endeavours to please. The catalogue was compiled in good order, issued and posted to the exhibitors the same evening, and the birds well looked after. Many sales were effected, some of the prize birds being quickly claimed. A special prize, a pencil case, given to the best bird in the first four classes, belonging to a member of the "Good Intent" Society, was awarded to Mr. Stageman's bird (40) in class 8. The prize of £1 for the greatest number of points in the Canary section of the Show was won by Mr. Adams of Coventry; and another prize of £1 for the best bird in the same section was awarded to Mr. Bunting's famous Goldfinch-and-Canary Buff Mule, the next strongest competitor to it being a Linnet-and-Canary Mule exhibited by Mr. Stevens.

## PIGEONS.

**POUTERS.**—Cock.—1 and Special, L. & W. Watkin, Northampton. 2, W. Nottage, Northampton. 3, J. Baker, Spring Grove, Kew Bridge. 4, C. Martin; Foster and Chambers. Hen.—1 and 2, W. Nottage. 2, L. & W. Watkin. 3, J. Baker. 4, C. Martin. 5, L. & W. Watkin.

**CARRIERS.**—Cock or Hen.—1, H. Yardley, Birmingham. 2, J. Baker. 3, W. Larkins, Henlow, Biggleswade. 4, W. J. Warhurst; J. Baker; W. J. Toon. 5, H. Parker; W. Nottage. Hen.—1, J. Baker. 2, W. Larkins. 3, G. Beasley, Rickmansworth. 4, H. Yardley.

**CARRIERS.**—Young Cock or Hen.—1, H. Simpson, Spalding. 2, J. Baker. 3, W. J. Toon, Kettering. 4, J. Baker; G. H. Pym. 5, G. H. Pym.

**BARRAS.**—Cock or Hen.—1, H. Yardley. 2, W. Larkins. 3 and 4, J. Baker. 5, C. A. P. Byford.

**TUMBLERS.**—Cock or Hen.—1 and 2, J. Baker. 3, W. Nottage. 4, A. & W. H. Silvester. 5, J. Baker; H. Yardley.

**OWLS.**—Cock or Hen.—1, J. Baker. 2, W. G. Henry, Sandymount, Co. Dublin. 3, T. Chambers, Northampton. 4, T. Chambers; J. Baker. 5, H. W. Webb; J. Barnes; W. Nottage; J. Baker; H. Yardley. 6, F. Siedle.

**TUMBLERS.**—Cock or Hen.—1, H. Yardley. 2, T. Homes, Lower Sydenham. 3, E. E. Horsfield, Grassendale Priory, Liverpool. 4, C. A. Ormer; J. Baker. 5, J. Cargill; R. Woods; C. W. Washbourne; J. Baker; A. & W. H. Silvester. 6, W. J. Warhurst; G. W. Dutton; J. Baker.

**JACOBIANS.**—Cock or Hen.—1, C. Martin, Kettering. 2, J. Baker. 3, T. W. Swallow, Northampton. 4, C. Martin. 5, F. Siedle; J. Baker.

**DRACOONS.**—Cock or Hen.—1, J. Baker. 2, H. Yardley. 3, A. McKennie, Liverpool. Extra 1 and 2, R. Woods, Mansfield. 4, J. Baker; A. McKennie; W. Smith. 5, R. Woods; W. G. Henry; Foster and Chambers; Griffin and Jones; A. McKennie; C. F. Herrieff; W. Larkins. 6, E. C. Jardine.

**ANTWERPS.**—Cock or Hen.—1, C. F. Copeman, Solihull, Warwick. 2, H. Cox, Smethwick. 3, O. F. Herrieff, Banbury. 4, H. Yardley; Miss M. A. Perrin; O. Gamon. 5, J. Hill; C. F. Herrieff; H. Yardley; C. Hillier; H. W. Weaving; A. McKennie; J. Kendrick; H. Cox; O. Gamon. 6, Griffin and Jones; Sorrag and Valters; H. Hill.

**ANY OTHER VARIETY.**—Cock or Hen.—1, J. Baker. 2 and 3, A. & W. H. Silvester, Sheffield. 4, J. Baker; H. W. Webb, Lower Sydenham. 5, W. Brown; H. Yardley; C. F. Herrieff; J. Baker; W. H. Crews; H. W. Webb. 6, F. Siedle.

**SELLING CLASS.**—Single Birds.—1 and 2, H. W. Webb. 3, W. Nottage. 4, W. Brown; Foster and Chambers; W. Nottage; T. Chambers, jun.; J. Barnes; J. Brown; C. Hillier; W. Larkins. 5, R. Woods; A. P. Byford; H. Simpson; C. E. Chavasse.

**SELLING CLASS.**—Pairs.—1 and 2, W. Nottage. 3, A. P. Byford, Ipswich. 4, W. G. Henry; T. Chambers, jun.; J. Baker. 5, W. G. Henry; O. E. Chavasse; Foster and Chambers; W. Brown.

## RABBITS.

**LOP-EARED.**—Buck or Doe.—1, T. Schofield, jun., Cheetham, Manchester. 2, J. Barker, Louth. 3, T. & E. J. Fell, Blackburn. 4, T. Lomath; H. Woods; T. Schofield, jun.; Mrs. H. Pickworth. 5, H. E. Jones; T. Green. 6, J. Bingham.

**DUPES.**—Buck or Doe.—1, F. Glover, Wellingsborough. 2, Mrs. H. Pickworth, Moulton Marsh, Spalding. 3, W. Doukin, Driffield. 4, Mrs. H. Pickworth; B. Greaves; J. G. Meadowcroft; Rev. T. O. Beasley. 5, Griffin and Jones; Master H. E. Johnson.

**ANGORA.**—Buck or Doe.—1, R. H. Swain, Heywood, Lancashire. 2, W. Welch, Northampton. 3 and 4, J. Martin, Kettering. 5, J. Martin; H. E. Gilbert; A. Farndon; S. M. Beasley. 6, W. G. Cross; W. M. A. Hames; T. & E. J. Fell; J. Hallas.

**HIMALAYAN.**—Buck or Doe.—1, Foster and Chambers, Northampton. 2, H. E. Gilbert. 3, J. Barker. 4, J. G. Meadowcroft; C. G. Mason. 5, H. E. Pilgrim; C. G. Millet; A. W. Whitehouse; T. Schofield, jun.; C. Tassell; J. Hallas. 6, J. James; J. G. Meadowcroft; J. Tebbutt; C. Tassell.

**SILVER-GREY.**—Buck or Doe.—1 and Special, J. Firth, Bramley, Leeds. 2, F. Purser, Bedford. 3, G. Johnson, Bedford. 4, T. Schofield; J. Tebbutt; J. Quick; F. Purser; E. B. Smith. 5, A. W. Whitehouse; J. G. Meadowcroft; B. Greaves; E. Ames; H. W. Wright; E. Robinson; R. H. Glew; W. Daniell. 6, E. Ames; E. Robinson.

**ANY OTHER VARIETY.**—Buck or Doe.—1, S. Ball, Bradford (Silver-Cream). 2, Rev. T. O. Beasley, Dallington, Northampton (Belgian Hare). 3, G. H. Robinson, Edenhurst, Sevenoak (Belgian Hare). 4, W. H. Crews (Belgian Hare); W. B. Smith (Silver-Cream); B. Greaves (Belgian Hare). 5, W. H. Crews (Belgian Hare); B. Greaves (Belgian Hare); J. Tebbutt (Belgian Hare). 6, A. W. Whitehouse (Belgian Hare); T. Schofield, jun. (Belgian Hare); J. Hallas (Belgian Hare); A. Skinner (Belgian Hare); S. H. Pilgrim (Belgian Hare); J. Tebbutt (Belgian Hare).

**SELLING CLASS.**—Buck or Doe.—1, Mrs. H. Pickworth. 2, T. Schofield, jun. 3, F. Purser. 4, J. Tebbutt; B. Greaves; H. E. Hallam. 5, B. Greaves; Rev. T. O. Beasley; J. C. Bamber; Mrs. Francis; J. Hallas; J. Bingham.

## OAGE BIRDS.

**NORWICH.**—Clear Jonque.—1 and 2, W. Willis & Provart, Helgham, Norwich. 3, J. Athersuch, Coventry. 4, J. Athersuch; G. & J. Mackley; J. Adams. 5, J. Adams. 6, G. Hobbs. Clear Buff.—1, 2 and Extra 3, Willis & Provart. 4, G. & J. Mackley, Norwich. 5, J. Adams; J. Athersuch. 6, Brown and Gayton. 7, G. Hobbs.

**NORWICH.**—Evenly-marked Jonque.—1 and 2, G. & J. Mackley. 3 and pencil case, J. Stageman, Northampton. 4, J. Athersuch; Martin & Griffin. 5, Moore & Wynn. Evenly-marked Buff.—1, J. Adams, Coventry. 2, Brown and Gayton, Northampton. 3, C. J. Salt, Burton-on-Trent. 4 and 5, G. & J. Mackley.

**NORWICH.**—Ticked or Unevenly-marked Jonque.—1 and 2, J. Athersuch. 3 and 4, J. Adams. 5, G. & J. Mackley. Ticked or Unevenly-marked Buff.—1, J. Adams. 2, J. Athersuch. 3, G. & J. Mackley. 4, Willis & Provart; G. & J. Mackley. 5, J. Adams; Willis & Provart; J. Athersuch. 6, Willis and Provart.

**NORWICH.**—Any variety Crested Jonque.—1, J. Torr, Derby. 2, G. Cox, Northampton. 3, F. Woodward, Litchurch, Derby. 4, C. Hillier. 5, G. & J. Mackley. 6, T. Wright. Any variety Crested Buff.—1, S. Stratford, Northamp-

ton. 2, F. Woodward. 3, G. Cox. 4, J. Athersuch; G. & J. Mackley. 5, G. & J. Mackley; J. Adams. 6, Martin & Griffin.

**BELGIAN.**—Clear, Ticked, or Variegated Yellow.—1 and 2, Withheld. 3, J. Horn, Armley, Leeds. 4, J. Horn; H. Wootton. Clear, Ticked, or Variegated Buff.—1 and 2, Withheld. 3 and 4, H. Davies, Wolverhampton.

**YORKSHIRE.**—Clear, Ticked, or Unevenly-marked Yellow.—1 and 2, Withheld. 3, J. Thackeray, Bradford. 4, J. Thackeray; L. Bell. Clear, Ticked, or Unevenly-marked Buff.—1 and 2, Thackeray. 3, Withheld. 4, E. Rhodes. 5, L. Bell. 6, G. & J. Mackley; T. Wright.

**YORKSHIRE.**—Evenly-marked Yellow or Buff.—1, Withheld. 2 and 3, J. Thackeray. 4 and 5, L. Bell, Dewsbury.

**LEICESTER.**—Golden-spangled.—1, J. Athersuch. 2, 3 and 4, S. Bunting, Derby. 5, R. Elcheie. Silver-spangled.—1, 2, and 3, R. Elcheie, Darlington. 4, S. Bunting. 5, S. Bunting; J. Athersuch. 6, J. Stevens.

**CINNAMON.**—Jonque.—1, J. Athersuch. 2 and 3, J. Adams. 4, T. Newbold, Brown & Gayton. 5, J. Stageman. 6, W. Elce. Buff.—1, 2, and 3, J. Adams. 4, W. Elce. 5, G. Cox. 6, J. Stageman.

**CINNAMON.**—Ticked or Broken, Jonque or Buff.—1 and 2, J. Adams. 3, J. Athersuch. 4, Moore & Wynn. 5, J. Seaton.

**CINNAMON.**—Evenly-marked or Variegated, Jonque or Buff, Plain or Crested.—1, L. Bell. 2 and 3, Brown & Gayton. 4, G. & J. Mackley. 5, W. Hayes; T. Townswood. 6, G. Golby.

**ANY OTHER VARIETY OF CANARY OR MULE NOT SPECIFIED.**—1, J. Stevens, Middlebrough (Linnet Mule). 2, W. Bowyer, Derby (Coppie). 3, E. Gilbert, Northampton (Linnet Mule). 4, G. B. Russell (Linnet Mule). 5, Martin and Griffin; S. Cook (Linnet Mule). 6, G. & J. Mackley (Lancashire Plain-head).

**GOLDFINCH MULE.**—Clear, Evenly-marked, or Variegated Jonque or Buff.—1, S. Bunting. 2 and 3, S. Bunting. 4, G. & J. Mackley. 5, G. B. Russell. 6, J. Horn.

**GOLDFINCH MULE.**—Dark Jonque or Buff.—1, J. Athersuch. 2 and 3, Moore & Wynn, Northampton. 4, G. & J. Mackley. 5, J. Stevens. 6, Brown & Gayton; G. Cox.

**BRITISH BIRDS.**—1, T. Wright, Northampton (Thrush). 2, W. Mead, Northampton (Hawk). 3, S. Abbott, Northampton (Jay). 4, T. Newbold (Thrush); W. Lonsdale (Starling). 5, J. Lacey (Thrush). 6, J. Horn.

**PARROTS, OR ANY OTHER VARIETY OF PARROT.**—Single or in Pairs.—1, S. Bunting (King Parrot). 2, W. L. Chapman, Northampton (Cockatoo). 3, W. Jeffrey, Northampton (Parrot). Extra 3, Martin & Griffin, Northampton (Cockatoo). 4, G. Sturges (Parakeet). 5, J. T. Gitch (Lovebird). 6, J. Trasher (Parrot).

**SELLING CLASS.**—1, L. Bell. 2, J. Athersuch. 3, W. Stringer, Atherstone. 4, T. Townswood, Middlebrough; E. Gilbert. 5, J. Athersuch; Willis and Provart; J. Middleton; Moore & Wynn. 6, J. Stageman; J. Athersuch; S. England; G. E. Russell; T. Newbold.

## SPECIAL PRIZES.

Prize for greatest number of points in Canary section, J. Adams, with twenty-one points.

Prize for best bird in the Canary section, S. Bunting.

Prize for greatest number of points in the Pigeon section, J. Baker, with twenty-five points.

Prize for the best pen in the Pigeon section, L. & W. Watkin.

Prize for the greatest number of points in the Rabbit section, Mrs. Pickworth and T. Schofield, jun., five points each.

Prize for best pen in the Rabbit section, J. Firth.

**JUDGES.**—Pigeons and Rabbits: Mr. E. Hutton, Pudsey. Cage

Birds: Mr. Walter, Winchester.

## THE JACOBIN.

I SCARCELY like to disagree with so genial and gentle a writer as "WILTSHIRE RECTOR," but in the true interest of the fancy I feel bound to do so.

In the first place I must differ as regards improvements of breed; this, I think, cannot be allowed. There are the points of a bird, the Jacobin for instance, truly laid down, and any deviation from them is a defect, and a judge would necessarily not place such an one first, nor ought he in my opinion to notice such birds, as it is by this means the true strains get gradually deteriorated, and quite a different kind of bird is substituted for the original. Now, as regards the Jacobin, the modern bird has scarcely one point in common with the original type. The head is different, the form, the frill, the carriage, and the marking; and some of them, instead of being improvements, are to me quite the other way. If one fancier fancies clear thighs, and another the mane, and so on, and shows them, by what rule are they to be judged? In my opinion only by the old standard of the true Jacobin, and by nothing else. A short time ago some fanciers tried to introduce pepper-throated Beards, and they gained some headway, until they found at the best shows not a bird was noticed; also white thighs were tried, but I am glad to find that is now abandoned for the whole colour. Make a new breed if you like, and lay down points to breed to; but when there is a bird of old standing, with all its qualities well defined, I cannot think it right to call a deviation from it improvement, and the judges at shows ought to mark their disapprobation of such by not awarding honours to them. By their not doing so the truly beautiful Jacobin has disappeared, and quite another thing substituted and shown in the Jacobin class.

I am rather surprised at "WILTSHIRE RECTOR," after enumerating the names of several well-known fanciers, saying that he has birds of their strains of various sizes, &c., which shows how good birds vary of the same variety. There is but one set of points of excellence in the Jacobin; no more. Then any other variety of Pigeon, and any birds that do not come up to them, are not good birds, be they bred by whomsoever they may. Again, as an artist, I differ with him when he says the high-out birds are not so beautiful as the low-out. With regard to the clear thighs, I believe my friend, the late and much-lamented Mr. Matthew Wicking, was one of the first to introduce them. Talking to me on the subject he said he did not consider it right, but as a fancy of his he would try and breed them so, and he did. Afterwards he told me he thought it a mistake, as they did not look so well. Again, as an artist my opinion is that the

white thighs are wrong, and do not give the balance to the long heavy frill that the solid colour does. Whoever laid the points for the Jacobin originally, in my opinion, well considered his subject, and I have often looked on the true birds and thought to myself that there was not a point I could alter for the better. It is quite different with the modern Jacobin, call it what you will, but not the true bird.

"WILTSHIRE RACTOR" says that the thighs are seldom so wholly dark, but that is no proof that they ought not to be. As regards the rose, it could not exist in the true Jacobin; nor the mane, because the division of the frill would not be of the length and form that it ought to be. I am sure that "WILTSHIRE RACTOR" will pardon any difference of opinion from him on my part, but I seriously think that he has, by his suggestion of improved breed, opened the gate to let in a flood of innovations, of which I am very sorry to say there are far too many already, and unless the rules and points laid down by old and valued authorities be strictly adhered to there is an end to all true breeds and good and proper judging.—HARRISON WHEAT.

### BEEs TWENTY DAYS HATCHING FROM THE EGG.

SOME time ago there was a controversy in this Journal between Mr. Pettigrew and Mr. Lowe on the question as to how long it takes for the development of the perfect insect (worker bee) from the laying of the egg; Mr. Lowe stating and proving from his own experience that such development takes place in twenty days—in other words, that the insect will issue from the cell as a rule on the twentieth day after the laying of the egg. Mr. Pettigrew, on the other hand, maintained that the rule required twenty-one days to elapse before the said development takes place, winding up with the statement that he "preferred his own and others' statement of days to Mr. Lowe's twenty days." Allow me to state my own recent experience in this matter. I do so simply in the interest of exact truth in a matter of some importance, not only because it is useful to the practical apiculturist to know the fact, but in defence of all the great masters in bee knowledge from Haber downwards.

On the 14th of May one of my servants reported to me that my bees were swarming. On going into the garden I became aware that a deserted hive, out of which the bees had died gradually a month or six weeks before, was being taken possession of by the said swarm. I soon found that it had come from a distance, as none of my own hives had swarmed; and, moreover, the bees were of the common English sort, which I have long disused in my apiary. Circumstances led me to examine the progress of this swarm, for they had great difficulty with the combs, many of which they carried away piecemeal, building fresh combs in their stead. My curiosity also was aroused on this very question, as I fortunately recollected the somewhat warm debate in your columns on this point. As the day approached I was therefore on the look-out, and sure enough on the morning of the twentieth day there were several young bees walking on the edges of the combs, pale-coloured and preening their wings as they usually do under the circumstances. I find the following note in my diary on the 3rd of June—"Saw several young bees to-day in Tasm. hive; consequently they must have been developed from the laying of the egg in less than twenty days complete."—B. & W.

**HUMBLE BEES FOR NEW ZEALAND.**—An interesting experiment, says the *Daily News*, is being made in the shipment of two nests of humble bees, which have just left Plymouth for Canterbury, New Zealand. The principal object aimed at in the introduction of these insects into the Antipodes is the fertilisation of the common clover, the pollen of which the common bee is generally unable to collect, while the humble bee, having a larger proboscis and being much stronger, is able to reach sufficiently deep into the flower to collect the fertilising dust. It is hoped that by this means the plant will be more generally fertilised, and its cultivation largely extended in the colony. The bees which have just left England for the Antipodes were in two separate nests, which had been procured by Mr. Frank Buckland, and packed in a suitable box where they were supplied with everything necessary for the voyage, including honey, farina, water, &c. They are very fine specimens of the humble bee. The exact number is not known, as many of the eggs are not yet hatched. They are placed under the care of Mr. John Hall, a member of the Council of New Zealand, who takes a stock of ice for the purpose of keeping down the temperature of the nests while passing through the tropics.

### OUR LETTER BOX.

**BUCKWHEAT FOR PIGEONS (E. B. T.).**—Buckwheat is not good as sole food for Pigeons. They soon tire of it. It is too fattening, and is bad for plumage, making the feathers very soft.

**BLACK BANTAM COCK'S COMB (J. T.).**—If the Bantam cock be exhibited

as a Black Bantam then it should have a rose comb, but if as a Game Bantam, and undubbed, it must have a single one. An ordinary Black Bantam cock should have a double comb to be a favourable or a high-class specimen of the breed.

**GIDDINESS IN FOWLS (F. H.).**—Bled by opening a large vein under the wing; pour cold water on the head; feed less and on moist food, and give abundance of lettuce leaves.

**DRAKE MOULTING (Subscriber).**—There is unnatural heat about the drake. You must rub the bare spots with citrine ointment, and discontinue all stimulating food. Confine yourself to that which a bird finds in a natural state. Oatmeal, bran, and whole oats are all good food. If the bird is in confinement give him daily a large sod of growing grass, cut with the earth, and put in the vessel containing his food, just covering it with water. If you will do this and confine him to the food we have mentioned, we believe the bird will recover and do well.

**TURKEY'S LEGS WEAKE (L. P.).**—It is not uncommon for Turkeys to fall off when the weather changes and the mornings and evenings are colder, but we have no hope of Turkeys doing well where the flooring of their house is of stone. It would make matters worse if you put boards over the stone. Take the stones up, and ram in earth mixed with chalk. Put on this an inch or two of road grit. Being under cover this is always dry, and affords healthy and useful picking. When the white frosts appear it is good to keep them confined till the sun is up, unless they are very forward birds. We do not approve of "hen spices." The natural food is good enough for any description of poultry, and they always did well upon it. In most other respects your feeding is good. We cannot help thinking that your mode of giving it is wrong. You say they always have food by them. This would imply it is constantly renewed. It must then become sour, and the birds take a dislike to it. To make very large and fat birds they should be fed three times per day, but the trough should be empty after every meal, and carefully cleaned. The feeder will soon ascertain how much they eat for a meal. Discontinue the bran. If you can substitute ground oats for barley-meal do so. Crooked breasts are often hereditary, when they are not they are the result of weakness. Their legs are too weak to hold them on the perch. Do you want change of blood? We never meet with a crooked-breasted Pheasant.

**ELEMENTARY BOOKS (An Aspirant).**—You cannot well go wrong in commencing to study physics. Since the days of our youth Chambers, Pimcock, Cassell, and many other firms have published educational courses containing all you need at first. From any catalogue of scientific works you may select what will suit you. Professor Beattie's *Alphabets*, published forty years ago or more, were of service to us. Read well every book, and master the elements of every branch as you proceed.

**FEEDING BEES (A. de C. B.).**—September is the time for autumn feeding, but by giving warm syrup to bees now they will store it up. The sooner and faster it is given to them the better. When bees are much abroad feeding should be done after sunset, but as they are beginning to sit quietly amongst their combs you may feed during the day as well as at night. As you have no feeding instruments of any kind, your better way will be to use dripping tins or soup plates. These should be filled with syrup, covered with chips of wood or straw, and placed on the boards inside your hives. If the combs touch the syrup no harm will be done. If the combs rest on the edges of the tins or plates raise the hives a little by ekes. You may turn up your hives and examine them internally at any time without injury to the bees. The hive that fell off the stool should be examined to see if any of its combs have been shaken out of place.

### METEOROLOGICAL OBSERVATIONS.

CARDEN SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.					Rain.			
1875.	Oct.	Barom. at top and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Air at 1 ft.	Shade Tem- perature.		Radiation Temperature.						
			Dry.	Wet.			Max.	Min.	In sun.	On grass					
We. 18	Th. 19	Fri. 15	Sat. 16	Sun. 17	Mo. 18	Tu. 19	Means	Inches.	deg.	deg.	deg.	deg.	deg.	In.	
								29.199	41.8	41.8	49.5	53.5	58.5	75.5	0.005
								29.345	46.3	44.8	48.9	50.9	40.5	73.0	0.132
								29.505	50.0	48.0	48.1	57.1	48.9	90.0	0.030
								29.683	46.6	45.1	49.3	56.3	42.1	95.8	—
								29.797	49.8	48.4	48.3	59.7	35.4	95.0	34.4
								29.635	51.5	48.9	49.5	56.5	44.4	73.9	0.785
								29.733	49.0	48.0	50.0	58.5	48.0	84.0	0.393
								29.571	47.8	46.2	49.5	55.0	40.9	79.7	1.255

### REMARKS.

- 13th.—Hazy and cold morning; showers in the forenoon; sunny at 1 P.M. and during the rest of the day. Lunar halo at night.  
 14th.—Fine morning and tolerably fair till noon, then rain; showery the remainder of the day, and heavy at night.  
 15th.—Very fine morning and till after 4 P.M., then raining for an hour or two, but fine after.  
 16th.—Fine all day, but rather foggy in evening and during the night.  
 17th.—Fair but hazy early, clearing off about noon, and fine day after.  
 18th.—Fine morning; rather cloudy after 3 P.M.; rain at 9 P.M., and heavy in the night.  
 19th.—Very dull early; showery and dull all day; rain at night.  
 Temperature generally about 4° below last week, dull Novemberish weather, with much rain on Monday and Tuesday.—G. J. SYMONS.

### COVENT GARDEN MARKET.—OCTOBER 20.

A good supply of best fruits has kept prices much the same, but common sorts of Apples cannot be cleared except at a very low figure, owing to the large quantities of windfalls that have reached the market during the week. Imported fruits consist of Hamburg, Almetra, and Sweetwater Grapes; Duchesse d'Angoulême, Cravanne, and Beurré Diel Pears; also some very good samples of Dutch Peaches.

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	OCT. 28—NOV. 8, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
28	TH	Alphonse de Candolle born, 1806.	54.5	35.9	45.2	49	af 6	39	af 4	57	af 5	9	af 4	29	16	7
29	F		54.0	35.7	44.8	50	6	37	4	11	7	22	4	30	16	11
30	S		54.9	36.8	45.8	53	6	35	4	26	8	39	4	1	16	14
31	SUN	23 SUNDAY AFTER TRINITY.	54.0	38.0	46.0	54	6	34	4	41	9	1	5	2	16	17
1	M	Kämpfer died, 1716.	54.8	37.9	46.1	56	6	32	4	61	10	32	5	3	16	18
2	Tu		54.4	37.8	45.8	57	6	30	4	54	11	14	6	4	16	19
3	W		53.5	35.9	44.7	59	6	28	4	after.		11	7	5	16	19

From observations taken near London during forty-three years, the average day temperature of the week is 54.2°; and its night temperature 37.0°.

## NOTES ON THIS YEAR'S FRUIT CROPS.



NE of the most remarkable things in connection with the present year is that while it has been one of the coldest and dullest on record, it has at the same time been one of the most fruitful, and outdoor fruits, with the exception of Pears, have been good as well as plentiful.

Peaches, Nectarines, and Figs, which usually do not flourish here, have all been abundant. I have still (October 20) some fine fruit of Walburton and Late Admirable Peaches on the trees. Plums on walls have been abundant, and exceedingly fine in appearance and flavour. Coe's Golden Drop, now hanging on the trees, is as good as I ever tasted it. Imperatrice is not quite so good as it is sometimes. Plums always do well in our heavy moist soil, provided the blossoms are not cut off by the frost, and this year being moister than usual they have done proportionately better. They are also in a very promising condition for the coming season. I wish I could say the same of the Red and White Currants. We had abundance of fruit, and that for preserving and culinary purposes in the earlier part of the season was good, but towards the end of August the fruit remaining on the bushes began to shrivel; most of the foliage also dropped off soon after, leaving the bushes almost bare, and with small unripe wood. I do not think they will ever recover their former luxuriance. The only chance I have with them is to prune-back to the wood which is ripe, and in most cases that will be to the growth of last year. I am glad to say I have one kind which has withstood the cold soil and cold atmosphere, and has kept its leaves to the present time and ripened its wood—it is that known as Raby Castle; and I need not say that for the future all other Reds, excepting a few of an earlier kind to be planted on lighter soil, will have to give way to this one. Perhaps it might not succeed so well on a light soil; of that I have no experience, but I recommend those having a cold heavy soil to give a trial to Raby Castle.

Black Currants have done very well; they like moisture. Lee's Prolific is as superior to other Black Currants as the Rough Red Gooseberry is to the Roaring Lion—nay, more so, for it has both size and quality to recommend it; it has a sweet and delicious flavour altogether different from other Black Currants, and is quite fit for any dessert table. I do not know if it is superior to others for cooking purposes; for the best-flavoured fruits are not always the best for cooking, the action of the fire changes their character considerably, and they often only deserve a second-class place in the kitchen and still-room. This is notably the case with Strawberries, the old Grove End Scarlet being when raw a very inferior fruit, but cooked in any way, there is no other Strawberry with which I am acquainted half so good either in appearance or flavour.

Gooseberries have done well, especially Warrington. I should be glad if some one would recommend a light-

coloured Gooseberry of good appearance and flavour which will keep to the end of September or later. Any other colour than red will do.

Apples are abundant, and where they were severely thinned are fine, otherwise they are small and worthless. There is no dessert Apple in its season—early autumn—to be compared with the Kerry Pippin. At the present time King of the Pippins is the best I have.

Pears are neither good nor abundant. Jargonelle, Williams' Bon Chrétien, Fondante d'Automne, Suffolk Thorn, and Beurré Hardy have been fairly good in quality; the last named only remained in condition five days. Thompson's, which was so good last year, is this season so spotted as to be unfit for table; still, its flavour is very good. Marie Louise from a south wall was bitter and useless, and from an east wall and standard it is very little better. Hason's Incomparable from a south wall has no flavour whatever; but Van Mons Léon Leclerc from the same position promises to be, as it always is, A1.

The season, too, has had its effect on indoor fruits. Good Melons with me have not been plentiful; they have been thin and light in weight, and not up to the usual quality in flavour. The only kind tolerated here is Meredith's Cashmere, and it, perhaps more than any other Melon, requires a good season as well as good cultivation.

My usual practice with Muscats and other winter Grapes has had to be departed from, or I should not have had the wood ripened satisfactorily. In ordinary seasons if asked at what temperature I kept my Vines I could answer, From 50° to 95°; but as the day temperature very rarely reached the higher figure this season, I found it advisable to keep a higher night temperature. It takes a certain mean temperature to ripen Grapes and Vines, and if it can be kept up by solar heat so much the better for the pocket and the health of the plants; but when it is not produced naturally it must be had in another way. It is not a few degrees higher or lower occasionally that is of so much consequence as is the average temperature: 55° for a limited time will not harm the tenderest variety of Grape in cultivation, neither will 95° by solar heat when the ventilation is skilfully attended to; but either of these extreme temperatures kept continually would ruin both Grapes and Vines. It does no harm for a few hours in the day to maintain a high temperature when there is abundance of light; and, on the other hand, the night temperature ought never to be sufficiently high to excite the plants; but, as I have already said, a certain average temperature must be maintained, and if the sun fails to do it, then it must be produced by the aid of fuel. In practice this season I have found it the most economical to keep a rather higher night temperature than usual and give less ventilation by day—in other words, to keep on forcing all the summer.

Where this forcing has not been done it would be advisable even now to apply fire heat, with air, where Vines have not lost their foliage, to assist the maturation of the wood. In the case of the many amateurs and

others who at this season pot-up *Pelargoniums*, &c., and place them in their vineries, the extra heat given to the Vines will be beneficial also in assisting the re-establishment of the newly-potted plants.—WILLIAM TAYLOR, *Longleat*.

## PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 6.

**VALLOTA PURPUREA.**—The Scarborough Lily is so named from association with Lord Scarborough, and not from any reference to the well-known watering place of that name, as might be concluded from an observation I heard the other day—viz., “the Vallota did remarkably well on the east coast,” and I would beg to add in every greenhouse in any part of the kingdom. It is the finest of all greenhouse bulbs, and very free-blooming, doing also very well as a window plant. The flowers, as everyone knows, are bright deep scarlet, and when going-off have a tinge of purple; hence, perhaps, its name. For vase-filling for table purposes in its season it is matchless, the deep yellow anthers contrasting well with the petal-colouring. By itself, or a ground of it studded with white *Liliums* is superb, or a margin of *Lapageria rosea* blooms alternating with the white variety (*L. alba*) and filled-up with Vallota, and a few white *Lilium* blooms interspersed, and moderate green used, not to hide but to relieve, a charming vase is had for table. It flowers in a greenhouse at the close of August and early in September; and plants placed outdoors in an open situation will flower at the close of September, and may then be moved under glass. In any light airy position—in a pit or greenhouse from which frost is excluded, or a room window—it is quite at home, requiring abundant supplies of water when in growth, which will be during the spring and early summer months, and after June water need only be given to keep the leaves from flagging, but they are not to be dried-off at any time, the plant being strictly evergreen. Potting may be done in November, or in February or March, potting with the ball entire, or removing only any loose soil, and not removing any offsets unless stock is wanted, and giving no larger size of pot than to admit a little fresh soil all around. A compost of turfy loam, with a third of leaf soil, with or without a fourth of old cow dung will grow it well, affording good drainage. The variety *eximia* is considered finer, and major has a stronger habit, large flowers, darker foliage, has a white throat, and is paler in colour.

**JACOBZAN LILY** (*Sprekelia formosissima*).—This plant flowers in early summer, and by introducing it to gentle heat from January to March flowers may be had successively up to those flowering in the greenhouse. If the bulbs are dried their after well-doing is best secured by affording bottom heat after potting or repotting, as some do before starting, for though they will flower the leaf-growth is poor, and the after-flowering is meagre until the plants recover vigour. They are best potted when in full growth or some time after flowering, well watering until the growth is complete, and then only to keep from flagging, withholding water altogether when the leaves turn yellow. Half a dozen or more bulbs may be grown in a 6-inch pot. Good turfy loam with a third of leaf soil and a little old cow dung will grow them perfectly. Keep the plants in a greenhouse during the winter, not watering until the flower scapes appear. In summer a cold pit is a suitable place for them, but I am informed that in a well-drained soil with protective material in severe weather that this Lily makes a splendid outdoor display. I can remember its being grown in a Pine stove, and flowering in April.

**CRINUMS.**—*Crinum capense alba* and its variety *rosea* have funnel-shaped flowers in large umbels; the flowers are also large individually, and very sweet. In a greenhouse, where they want plenty of light, they flower in April or May, and outdoors later. The plants require an abundant supply of water during growth, and after that is complete gradually reduce it; none to be given when at rest, only the leaves are not to be allowed to flag. A well-drained soil outdoors is most suitable, and a sheltered position. *C. amabile* is a stove subject and grand, having twenty to thirty large rosy flowers on a scape 8 to 4 feet high, the tube 6 inches long, and lobes as long as the tube. *C. asiaticum* has white flowers, twenty or more on a scape. *C. americanum* has also white flowers; they are all highly but delicately fragrant, and require a stove, as do *C. zeylanicum*, *C. seabrum*, and *C. Makoyanum*. All have a grandeur about them for cutting not found out of the *Amaryllids*. *C. Herbertianum* is a hybrid between *seabrum* and *capense*, blush with red stripes, and requires a greenhouse; also *C. riparium*,

purple; and *C. aquaticum*, rosy red, a semiaquatic, which needs to be in a pan of water during growth.

All *Crinums* require turfy yellow loam with a fourth of cow dung or a third of leaf soil, and good drainage, as during growth the watering can hardly be too abundant. To keeping at great distances from the glass in shade, making no difference between the growing and resting period in watering—regular waterings being abominable treatment—is to be attributed the indifferent flowering of this family; but with very free watering during growth, enjoying full exposure to light, and with a drier and warmer atmosphere when maturing and at rest, they flower freely and are plants of great beauty.—G. ABBEY.

## FRUIT-TREE PLANTING.

WHAT should I plant? When should I plant? How should I plant? Here are three plain questions to which it is highly important that equally plain answers should be given. It is by no means an easy matter to do this so as to meet the requirements of every class. Some wish for novelties, others for very early or late kinds; peculiarities of flavour and of form also find numerous advocates. Then, too, an elaborate explanation of the details of planting is apt to mislead and puzzle the uninitiated, frequently causing considerable waste of time, labour, and capital. The answers, therefore, must be simple, clear, and so comprehensive as to afford some hints for the guidance of all. Let us take the questions as they stand.

What should I plant?

1. For the supply of a large establishment. Enough of all kinds that are of a free vigorous growth, robust hardy constitution, and very prolific, including sorts which range from the earliest to the latest, so as to afford an abundant supply throughout the season. If there are two varieties with fruit bearing a close resemblance, do not hastily discard either of them; they are quite certain to differ somewhat in some essential point, apparently so trifling as to receive very little attention till some peculiarities of weather affect them for good or evil. To these such other varieties should be added as produce fruit of high excellence under favourable conditions, but which are so liable to suffer from unkindly seasons as to be unsuitable for gardens when to economise space is an object—delicate kinds, in fact, requiring more than ordinary cultural skill and care in their management.

2. For gardens of medium size. There must be no speculative work here. Every tree must be of some well-tried kind of sterling merit, and must form a link in that successive seasonable supply which it is so desirable to maintain without any failure.

3. For a small garden. A few very select and choice varieties coming to perfection in mid-season rather than very late or early, so as to ensure an annual supply so far as may be.

When should I plant? As soon as possible after the trees have shed their leaves for choice, and at any time during November and the two following months. Planting may also be done in February and March, but a season's growth is then endangered, and often lost—a serious matter in fruit-culture, and it is only upon an emergency that such late planting should be practised. November is undoubtedly the best month of the twelve for tree-planting; all growth has then ceased, the wood is matured, and the entire system is at rest. Much anxiety and watching is also avoided by planting early. Fine open weather and soil in a suitable condition should be made the most of. A single opportunity neglected now may lead to failure. Stern winter, with its stormy alternations and frost and snow, is approaching us; we cannot plant in sodden soil, and may have to wait till the sap is in motion and the pressure of spring work is upon us, and then the planting will be done with a rush, and the entire affair prove unsatisfactory.

How should I plant? Make the holes deep and wide enough for every root to be spread out without any twisting or cramping; cut off bruised roots and the ragged ends of any that are broken; pack the soil gently yet firmly among the roots, treading the surface well after all is covered, but avoid hard stamping, bruises from tools, or any similar rough practices. Careless men may often be seen trying to force a badly planted tree into an erect position by pushing and stamping, to its great risk and frequent damage. Do not bury the stems; many a valuable tree is lost through deep planting; 4 inches of soil is an ample covering for the roots. As a rule, the base of a newly planted tree should always be slightly elevated above the common level; some settlement always follows the planting, however closely the soil may have been pressed.

Let not beginners be misled by my details of planting given on page 355, and imagine such an elaborate and costly method of preparing the stations to be always necessary. Happily, such difficulties are the exception and, not the rule. In the majority of gardens no special preparation is requisite. Where other trees flourish and vegetables grow luxuriantly fruit trees may also be expected to answer thoroughly well. The fortunate owners of such soil can well afford a meed of pity for those of us whose lines have not fallen in such pleasant places.

Never suffer a freshly planted tree to be rocked by the wind; if you do there is great risk of loosening it. The top, acting like a lever, loosens the roots from that firm pressure of the soil which is of such vital importance. I attribute much of my success with young fruit trees to a strict attention to securing every tree with wires or stakes as it is planted, making that a part of the process of planting to be done before leaving the tree.

I append a short list of the best kinds of fruit, and hope to describe them at length in some future papers.

## PEACHES.

Early Beatrix,  
Rivers' Early York,  
Dr. Hogg,  
Gros Mignonne,  
Belle Beaune,  
Walburton Admirable.

## PLUMS.

Denniston's Superb,  
Transparent Gage,  
Bryanston Gage,  
Purple Gage,  
Jefferson,  
Blue Impératrice.

## FIGS.

White Marselles,  
Brunswick,  
Brown Turkey,  
Grizzly Bourjassotte.

## APPLES, Dessert.

Irish Peach,  
Kerry Pippin,  
Ox's Orange Pippin,  
Margil,  
Golden Pippin,  
Sturmer Pippin.

## DAMSONS.

Rivers' Early,  
Cluster.

## NECTARINES.

Lord Napier,  
Pitaston Orange,  
Downton,  
Balgown,  
Rivers' White,  
Pine Apple.

## CHERRIES.

Early Purple Guigne,  
Impératrice Eugénie,  
Reine Hortense,  
Transparent,  
Governor Wood,  
Kentish,  
Morello.

## PEARS.

Williams' Bon Chrétien,  
Fondante d'Automne,  
Doyenné Boussoch,  
Knight's Monarch,  
Winter Nellis,  
Zéphirin Grégoire.

## APPLES, Kitchen.

Kewwick Codlin,  
Lord Suffolk,  
Cellini,  
Warner's King,  
Alfriston,  
Hawwell Souring.

## NUTS.

Red Filbert,  
Pearson's Prolific,  
Cob.

—EDWARD LUCKHURST.

## HERBACEOUS PLANTS FOR BEDDING.

If anyone thinks that the herbaceous plants mentioned by "M. H."—pretty and useful as they are—can last under any treatment so as to bed with Geraniums, they will be disappointed. Perennials are very well in borders specially prepared, and every garden of any size ought to have a perennial or hardy herbaceous mixed border; but, do what one may, it is difficult, or impossible, to obtain a sufficient succession of bloom to make any continuous display. Amongst the best plants are Phloxes and Pentstemons, and where the position admits of it recourse must be had to sub-tropical-foliaged plants, as Cannas, variegated Maize, Ricinus, Giant Hemp, &c. These four I name have done well with me this year. Gladioli do well too in mixed borders. I can especially recommend them to be used in Rose beds, where plants are grown on the Manetti and where the soil is not too strong.

While on the subject of Gladioli I am ready to back out "D., Deal," if my opinion is worth anything. I do not think the Gladioli will degenerate under proper cultivation in good soil. We must remember a fresh corm is made every year, and when the soil suits, over-blooming will not affect the next corm.

Those bulbs I left in the ground all last winter gave me far finer spikes than those taken up, or than a hundred named sorts sent me by Mr. Kelway.—P.

**FROST IN ABERDEENSHIRE.**—In looking over the "Doings" in the Journal I was surprised to read, "The thermometer (at Ifford) has not yet fallen below 45° at night." We cannot say the same here (in Aberdeenshire), for on the nights of the 11th and 12th we had 6° and 7° of frost. Dahlias, Marigolds, &c., are completely destroyed. Mr. Douglas also states that soot prevents worms going into pots, being obnoxious to them. That is worth knowing; but I think worms are often introduced

unawares with the compost in the operation of potting. Then when their effects become visible, the question is, What is the best way to get rid of them? I shall be obliged by an answer to this query in your correspondents' column.—J. H., Logie Mar, Tarland, Aberdeenshire.

## INDELIBLE WRITING ON TALLIES.

THERE are few things more annoying to anyone who cares for the names of his plants and fruits than to find these obliterated by the weather, when, unless he be familiar with their faces, he is left to the only alternative of having to endeavour to rediscover their identities, which is often a matter of no slight difficulty, as well as uncertainty in the end.

Many years ago, for the double purpose of recreation and health by having a half-hour's fresh air once or twice in the day, and for obtaining cut flowers for the house, I purchased a small garden just outside the city walls, and about six minutes' walk from where I reside; but on looking over its contents I was very much disappointed in finding that in most instances the names were absent. In many cases the nurseryman's wooden label remained, although all trace of the names had ceased to exist, and it immediately suggested itself that had these been varnished while they were recent, in all probability the writing would be as permanent as the wooden tally itself.

In the re-arrangement of planting it was decided to put in several dozens more of fruit trees and bushes, and to have recourse to a plan of putting the above idea into practice; and I herewith enclose one of the varnished labels which has been out in all weathers for over a dozen years, and so far as its legibility is concerned there is little doubt but that it would have lasted as many more years, or even longer. I enclose also another which appears to have escaped the varnishing process, and in which the name is only just decipherable by close inspection. These, being cut out of sheet zinc, presented some difficulty as to the safest means of suspension, for neither iron nor copper wire were admissible on account of the galvanic corrosion, which would soon have caused them to fall; hence lead being contained in zinc as an alloy to render it capable of being rolled out, this was first adopted; but on the first high wind they were broken, or rather cut from their moorings and scattered far and wide from their places. Then, as the least of the evils, galvanised wire was employed, and its galvanic effects may be seen on the labels now sent.

Un glazed earthenware labels were next tried, but it seemed to be impossible to find any means of preventing the writing being washed off by the rain, and these, therefore, were soon discarded, going back to the old wooden strips fastened with thin copper wire as the most reliable after all. In preparing these labels, however, there are ways and ways, and it is not paint that should be used, but white lead of which paint is made. The easiest way of proceeding will be found to be as follows. Have a pennyworth of the best ground white lead tied up tightly into a ball in a piece of damp bladder or gut-skin; then insert a tinsack or very small flat-headed nail, which is to be replaced again as a stopper, into the shoulder by the side of the neck, and this, when drawn out, suffers a little of the lead to ooze out after it, which may be rubbed on to the prepared side of the tally with the end of the finger or a piece of dry sponge or lint, finishing it by writing the name with a soft black or BB twopenny drawing pencil into the wet surface. It is best to wire the labels first, and they may then be attached at once so as to dry on the plant. The most convenient arrangement, however, where a little more cost is not an object, is to procure a fourpenny tube of "flake white" as sold by stationers and artists' colourmen, as this is both clearer and a much better colour, and which is less liable to discolour by age, and is really but a mere trifle more expensive than the former plan. With respect to the varnishing this need not be attended to at once, but may be done any time within the next few months, choosing a dry season and a still day for the operation. Having provided two 1-oz., long, wide-mouthed phials with good corks, let one be half filled with copal, carriage, or quick-drying oak varnish, or such as may be obtained of almost any house painter, and the other with spirits of turpentine. Next procure a small hog's-hair brush that will go freely into the mouth of these bottles, or an artist's flat hog's-hair if it can be obtained. By having the phials only half full they may be suspended to the coat button with little fear of spilling, and will be easy to get at. If the brush becomes clogged it may be rinsed in the turpentine, otherwise the latter will only be wanted to wash the brush in after using, so as to

preserve it for another time, and may therefore be left indoors for safety.

For permanent pot-markers sheet zinc is unquestionably unequalled, and by being varnished it may be kept in very presentable condition for any length of time. The proper ink for writing on zinc is nitro-muriate of platinum, which produces a jet-black indelible stain. This preparation is easily made, and at very little cost. Procure an ounce stoppered phial, into which have two pennyworth, or half an ounce, of nitro-muriatic acid (composed of two parts muriatic to one of nitric), which may be obtained of any chemist. Next obtain from the gunsmith an old platinum touch-hole, which may be had for a few pence; then putting the latter in the acid and leaving out the stopper, set the phial in the sun or else upon hot sand until the acid has assumed a deep, rich, brown tint, or that the metal has ceased to give off bubbles of gas from the acid becoming a saturated solution. A few drops of this should now be added to a little water and tried with a quill pen, adding drop by drop until a sufficient blackness is produced. When using, great care must be taken to wash the writing thoroughly in plenty of water immediately it has blackened, and then it should be wiped quite dry and varnished as soon afterwards as possible.—W. KENCZLY BRIDGMAN, *Norwich*.

### WASPS AND TOMATOES—ONIONS AND CARROT GRUB—FLIES AND PLANTS IN ROOMS.

"D., Deal," asks, page 313, whether anyone has experience of the influence of Tomato plants in houses keeping away wasps. I have a row of Tomato plants in pots the whole length of two Peach houses, and any day for weeks, until within the last few days (the wasps having disappeared from the cold and wet, except a few queens which are seeking winter quarters) several of these useful as well as destructive creatures might be seen hunting for prey upon the Peach tree leaves, the trees happening to have an attack of scale, and upon the secretion of those pests the wasps and bluebottle flies feed greedily. Into the vineries the wasps do not come, at least for the last six years I have not had to take any measures to keep them from the Grapes, as they have not interfered with more than a cracked berry, and that rarely, and though Tomatoes were grown in the vineries, so that my experience points to the inutility of Tomatoes as a preventive of a wasp invasion.

For years I have not had a Carrot free from the grub; and as it was stated in "our Journal" some time ago that sowing Onions along with the Carrots was a safeguard, I gave it a trial, and have to acknowledge a more complete failure of the Carrots from grub with the Onions than when the Carrots were sown and grown without the Onions. I know certain plants never are attacked by insects of any kind, some plants by certain kinds of insects only; and I have found also that if you will train a *Stephanotis* up the same rafter with a *Clerodendron Balfourii*, that though both the plants have their shoots intertwined, the mealy bug and scale will thrive amazingly upon the *Stephanotis*. It was the same with the Carrots. Even where the Onions touched the Carrots the latter succumbed to the grubs.

Then I read in the newspapers how somebody found flies frequent a room when a box of plants—*Geraniums*, *Calceolarias*, and the like—were withdrawn, and when replaced in the window the flies disappeared. I remember hanging-up paper cages to attract the flies from the walls, the windows being full of plants—*Geraniums*, *Fuchsias*, and other plants. Experience tells me that insect attacks are not prevented by the presence of "strong-smelling" plants, or those upon which insects do not feed in proximity or in contact with those affording them subsistence.—G. ABBEY.

### PIERIS BRASSICÆ, AND MICROGASTER GLOMERATUS.

In some of the suburban districts the larvæ of *P. Brassicæ* (Large White Garden Butterfly) have been exceedingly numerous this season, but an effectual check to their development has been given by their familiar parasite. Some walls and palings to which the larvæ have retreated for pupation scarcely furnish one healthy pupa in a dozen, the rest having been punctured. A correspondent of the "Entomologist" appeals to naturalists to furnish him with pupa of *Microgaster* (an Ichneumon fly), so that the parasite may be freely introduced

into America, where the genus *Pieris* has been exceedingly destructive. I don't know how far we are justified in helping on this exportation. There is such a thing as "robbing Peter to pay Paul," and I fancy we want all the *Microgasters* ourselves at present. Has it ever been observed by the readers of this Journal that usually there is not an abundance in the same year of *P. Brassicæ* and *Baps*?—J. R. S. C.

[The white garden butterflies are by some entomologists retained in the genus *Pontia*.]

### CARRION FOR VINE BORDERS.

I HAVE read "INQUIRER's" remarks concerning the above practice, and feel rather pleased than otherwise that the question is once more mooted, because there are some employers, and even their gardeners, who have yet an idea that this burying of carrion in Vine borders is the one essential point to successful Grape culture. To my thinking, combined with some experience in the matter, nothing can be more adverse to the requirements of a Vine than to place such an unnatural substance in connection with the soil, and expect that the roots of a Vine will thrive in it. It is no doubt true that carrion may be buried at the bottom of a deep border when young Vines are planted, so that by the time the roots reach it decomposition will have done its work so efficiently as to make the carrion like soil itself. Even then it will have had its effect upon the soil for some distance around it, and through its action it will be a sour soddened mass from putrefied matter, that no roots, even as vigorous as are those of the Vine, can ramify in it to the benefit of the plant that receives its sustenance from them; and it may be that if the Vine is strong there will be no perceptible effect upon the condition of the growth, from the fact that if the Vine has been planted some years it will have roots elsewhere, so that its vigour may be maintained, and no check become apparent. I will relate my experience in the matter.

At the first place I took as head gardener there were some vineries newly built, and some Vines planted in newly and expensively made borders. I took the place on the 21st of March, and the Vines were planted the year previous. They were just breaking into growth, and apparently very promising, but to my surprise the Vines in the middle vinery of the three turned yellow in the leaf in the month of June. They flagged under the power of the sun, and made no progress as did the others in the other houses. I was puzzled to give my employer a reason for it, until I asked him how the borders were made, and during the conversation it came out that five pigs had been buried whole in this very border. This announcement was quite sufficient to induce me to examine the roots of these Vines, and I found the roots made the year before were entirely rotten, and that, too, as far back as where the soil had become soddened from the decay of the carrion, so that the Vines were almost deprived of roots. The soil was taken out, and the carrion taken away; fresh soil was added, and fresh Vines planted. These grew well, and nothing occurred afterwards to check the progress of the Vines. This fact is quite sufficient to convince me that carrion is a very objectionable substance to put into Vine borders.

Vines are gross feeders no doubt, but to make up for any deficiency in growth or produce, any stimulant given in a liquid form, even if it savours of carrion, is far more suitable than burying flesh; and if a border has proper soil and is well drained no harm, but, on the contrary, a great benefit will no doubt be derived from its use in that way at the proper time. The gardener who told "INQUIRER's" employer that Vine roots would go half a mile to get a taste of the carrion is perhaps able to refute what I have stated above; but I think he must have meant that they would go half a mile to escape it, if they go that distance at all. I think "INQUIRER" could not have given better advice.—THOMAS RECORD.

### PEARS CRACKING.

I HAVE planted a small outlying garden, which formerly was a garden to a cottage, with choice pyramid Apple and Pear trees. After three or four seasons' trial I find the Pears (not all the kinds) have a great tendency to crack, like the specimen I enclose, to the extent of about one-third of the crop. This happens very much with Bergamot Esperen and Beurré d'Isle. Can you suggest what might be the cause? The soil is a strong loam with, in some places, clay underneath, but the



district generally is celebrated for Apples, and my Apple trees in the same garden do very well.—A. G., *Beaminster, Dorset*.

[An experienced gardener tells us that he has observed that the fruit on the side of a tree most exposed to the cold winds is most liable to be cracked, the injury being done when the fruit is in a young state. We have also observed that cracking prevails in the more tender varieties, and where the soil and subsoil are cold. The last contingency seems to affect your trees; if so, cutting away the deep-striking roots, burning some of the clay and mixing it with the surface, keeping the surface also slightly manured and mulched, would be remedial.]

### THE NELUMBUM.

THE *Nelumbium* or Water Beans are not only remarkable for the beauty of their flowers, but they are credited with a list of virtues such as is possessed by few families of plants. These plants are of easy culture, and are readily increased by seeds. Propagation may also be effected by a division of the roots. In order to induce the plants to flower freely strong stove heat is needed. The plants require rich loamy soil, and during the growing season the tank in which they are grown must be kept filled with water. In the winter the plants may be kept comparatively dry to afford them a period of rest.

In reference to the various purposes to which these plants are applied, I cannot do better than quote from Dr. Hogg, who, in his "Vegetable Kingdom," states that "The most remarkable species is *Nelumbium speciosum*, the Egyptian Bean of Pythagoras, the Lotus and Tamara of the Hindoos, and the Lien-Hoa of the Chinese. By the ancients it was regarded as the emblem of fertility, and with it the Egyptians decorated the heads of their idols Isis and Osiris. It is held sacred by the Hindoos, and serves for the floating shell of Vishnu and the seat of Brahma. Sir W. Jones says, 'The Thibetans are said to embellish their temples and altars with it; and a native of Nepal made prostration before it on entering my study, where the fine plant and beautiful flowers lay for examination.' Dr. Wight states that the leaves and flower-stalks abound in spiral vessels, which they extract and form into those wicks which, on great and solemn occasions, are burnt in the lamps of the Hindoos, placed before the shrines of their gods. The Chinese extol it for its virtues, and rank it among those plants which are employed in the composition of the 'Liquor of Immortality.' They eat the seeds as we do Filberts, but they are more difficult of digestion; and are preserved in different ways with sugar. The root of the plant they also admit to their tables; great quantities being pickled with salt and vinegar, and reserved to eat with rice; and when reduced to powder it makes excellent soup with water and milk. It is from this root that Chinese Arrow-root is said to be obtained. The leaves are much used for wrapping-up fruits, fish, salt provisions, &c.; and when dry the Chinese mix them with their smoking tobacco to render it softer and milder. The Japanese, Thunberg states, regard the plant as pleasing to the gods, the images of their idols being often represented sitting on its large leaves. Some of the heathens have pictures thus drawn, which they make use of to animate the minds of the pious upon their death-beds, and to raise their affections heavenward! The petals smell like the flowers of Anise, and are slightly acrid, being used as the flowers of the Roses.

"The roots of *N. luteum* are farinaceous, and agreeable when boiled, resembling in flavour those of the Sweet Potato

(Batatas); the seeds are also eagerly sought after by children and the Indians of North America."—W. J.

### SOLDIERS' GARDENS.

FROM an official paper lately published under the authority of Lord Napier of Magdala it seems that the movement for providing soldiers quartered in India with garden plots continues to afford very satisfactory results. So well is the interest sustained that more than eleven hundred men sacrificed their leisure last year to this profitable amusement. Nor were they the only people to benefit by their employment. At certain seasons the commissariat authorities purchased from regimental gardens ample supplies of fresh vegetables for the troops when none were to be obtained in the native bazaars. Then married soldiers were able to eke out their rather skinny rations with plenty of "green meat," without having to pay exorbitant sums to native gardeners. Viewing these results, there appears little question that the establishment of a similar system among the troops in England would be beneficial. If military gardeners do so well in India, in spite of a scorching climate and poor soil, even greater things might be

expected of them at home. The chief obstacle lying in the way of this innovation seems to be the difficulty in finding sufficient cultivable ground for the purpose in the neighbourhood of military quarters. Unless the gardens are close to barracks, so much time is wasted in going to and fro that the soldiers grow disheartened and give up the work in disgust. To a certain extent this has been found the case in India, Lord Napier reporting in favour of "company" gardens compared with "regimental," owing to the former being as a rule close to barracks while the latter are generally some distance away. Nor must it be omitted from consideration that soldier-gardeners would be subject

Fig. 79.—NELUMBUM LUTEUM.

to much severer competition at home than in India where they very often have the field to themselves. Here their produce would have to stand comparison with vegetables cultivated by skilled professionals under the most favourable circumstances. Nevertheless in spite of these and other difficulties, we are disposed to believe that after a time the experiment would prove successful. Although soldiers might not be able to raise such crops as regularly trained gardeners, they would have a great advantage over the latter in cheapness of labour, their own leisure time being sufficient for all purposes. That such a system, if established on a sound footing, would greatly add to the contentment of many soldiers with their profession, can scarcely be questioned in face of the results already achieved in India.—(*Globe*.)

### THINNING FRUITS.

THIS year the crop of both Apples and Pears has been enormous, but the fruit in consequence has been smaller than usual, and in the south of Scotland it is not keeping well. I think that not nearly enough is said on the necessity of thinning fruit. When I speak of it I am told, "Oh! it is easy in your small garden;" but if it pays in a small it must pay better in a large garden, and there is no doubt the fruit is much better flavoured as well as larger, and also there is less chance of a scabby next year. I have thinned some trees with excellent consequences this year. Cooking Apples are much more useful when large, and even Pines, I am certain, would sell better if half the crop were removed early. Peaches and

Apriots are always thinned, and I do wish you would urge the necessity of thinning the common fruits, for it certainly pays.—A POOR LADY.

### FITTONIA ARGYRONEURA FOR COVERING SURFACES IN PLANT STOVES.

GENERALLY speaking there are of necessity unsightly surfaces in all houses devoted to the culture of plants in pots, and the pots themselves are an eyesore, and any arrangement which can cover up these unsightly objects and transform them into surfaces pleasing to the eye is desirable. There are few things more harsh and unsightly than a lot of pots standing on a stone bench, even when a layer of spar or gravel is placed over it; and so long as such a number of plants are required in a moveable form for so many different purposes, as is the case at the present time, plants in pots are a necessity. We have tried many ways of hiding such surfaces, and the most pleasing and effective that we have adopted is to put a margin of Portland cement about an inch deep round the outer edge of the stone shelves, and fill up to the level of this margin with clean-washed gravel about the size that will pass through a quarter-inch sieve. In this cuttings of the above-named beautiful *Fittonia* are inserted, about 6 or 8 inches apart, all over the surface, putting a row at the edge next the passage considerably thicker. This is done early in spring, and the cuttings soon root and cover up the whole space with the most luxuriant and beautiful silver-veined foliage, which soon hides pots of ordinary dimensions, and forms a charming undergrowth that sets off to the best advantage the plants that are placed on it. A few cuttings of *Panicum variegatum* are put in the front line, and this soon hangs down to the pathway. On larger surfaces where it does not hide larger pots, it is still a great improvement as a groundwork on dead and often dirty surfaces. Plenty of moisture with an occasional watering with guano water insures a most luxuriant growth of large leaves. When it is necessary to re-arrange the plants in pots, the *Fittonia* sheds like a fleece, and an opening can be made anywhere for a pot. As a groundwork underneath Pitcher-plants, which require so much moisture, it forms a beautiful arrangement, and it can be renewed yearly at very little trouble, and is the means of saving much labour in keeping dead surfaces in moist warm houses clean and tidy.—D. THOMSON (in *The Gardener*).

### A FEW WORDS ABOUT STRAWBERRIES.

I INTENDED to have written a line in answer to "AN OLD SUBSCRIBER" last week, but could not find time. As he has appealed, however, to my judgment among others, I write to say—First, Mr. Lovel was kind enough in the *Journal of Horticulture* to offer me some plants of *La Grosse Sucrée*; he has since more than fulfilled his promise by sending me plants of eight or ten varieties, all this year's runners. Second, I have no doubt whatever on seeing them that Mr. Lovel can accomplish under his system all that he says. I was in my stove when the plants came, and my gardener came to tell me he wished me at once to see the plants, as he never saw such fine plants of one season's growth in his life. I can quite corroborate what he said, as they were as full in the crown and as strong in the foliage (and especially stout in the footstalk of the leaf) as most plants you would find, under ordinary treatment, at the end of the second summer.

There is no royal road to gardening, nor is any one system the only one to follow to produce good results. Mr. Lovel's garden is on the chalk Wolds, but by high cultivation and constant manuring he has brought the land where he grows his Strawberries into splendid condition. Thus it must be from the specimen of soil attached to the roots of the plants which he sent me, which had, I believe, been lifted from his nursery beds. Again, the chalk Wolds, though thin in staple, are more retentive of moisture than is generally supposed. The crops of Turnips to be found in many parts of the Yorkshire Wolds, growing apparently out of brash or stony soil, is a sure proof that, though the upper stratum soil is thin, the staple is better than it appears.

Though the constant renewal of Strawberry beds may be necessary in some gardens and advisable in others, yet I am confident, from my own experience, that if more attention were paid to keeping the ground clean and free from runners, properly mulching with manure in winter and with chopped straw in summer, that Strawberry beds may be kept in good

bearing condition for seven or eight years or upwards; but then neither fork nor spade should be allowed, and the roots should be kept to the surface by feeding with top-dressing, which—and there, I fancy, I differed from Mr. Luckhurst—had better not be put on in autumn, when it only induces to leaf-growth, but in winter, after the crowns are ripened and when the plant is storing up food in its roots, for future fruiting. I do not believe that in any good garden soil properly drained the roots are inactive during winter, even when there is no growth of foliage. Any person with experience in bulbs will know that roots are formed in abundance before leaf-growth, and to a less degree I am convinced that when the leaf falls and the sap is said to descend, or, in other words, ceases to ascend, the roots of fruit trees are not inactive except in heavy, undrained, uncongenial soils, when they will often rot away. There must be a certain circulation of sap, even in deciduous trees, to keep the buds plump and the bark healthy; but this is a digression.

May I ask whether the Vine borders at Arkleton and Pot-holm are concreted? I have always maintained that Vine roots are often injured by being kept too dry, and that so long as the subsoil is good there is no necessity to concrete borders, &c. If Vine roots are properly fed with top-dressings and plenty of liquid manure, and have water enough in the winter, they will not push their roots out of their prepared beds. If cultivators are afraid of water to the roots, then, as the Vine is a thirsty fellow with large leaves and rapid growth, it will send its roots elsewhere out of the border to find its supply of drink. I thought by this time the question of earthen need not be raised again. I remember a man burying some dead pigs in his Vine border, and wondered the Vines retrograded, and I believe he wanted to bury some more had he not been persuaded that Vine roots did not like a mass of corruption.—O. P. P.

I AM not an authority at all upon Strawberries, but still I have had some experience, chiefly through the kindness of Mr. Gloede, who is in such matters the most experienced person I know, and certainly the best packer of Strawberries I ever met with. His plants sent from Les Sablons, about nine miles from Fontainebleau in France, arrived at Knahton as fresh as when taken up. I cannot say the same of my countrymen.

As "AN OLD SUBSCRIBER," page 359, has mentioned my name, and appealed to me with others for an opinion, I cannot do less than accede to his wishes. I must say, without doubting anyone's word, that I never succeeded in raising a pound of Strawberries from plants set out in September. It is next door to a miracle. Plants set out so late, unless they have previously made their crowns, could not do so late in the year. When Sir Harry came out I had from Bath twenty-five plants which Mr. Gloede, who was staying with me, at once pronounced to be Hooper's Seedling, a sort that has an unerring mark—namely, before ripening it turns to a dark colour of black or Prussian-blue colour. I sent some of the plants to Mr. Nicholson of Eaglescliffe, Yorkshire, and he also said it was Hooper's Seedling. He sent me the true Sir Harry, which is exactly like its portrait in Mr. Underhill's pamphlet. It did not succeed at all with me; but Hooper's Seedling, planted in the spring and deprived of its flowers and runners, cast next year from two hundred to three hundred berries per plant. It is an excellent cropper and good family Strawberry. I regret that I ever gave it up. The foliage and berry were in form like Keens' Seedling.

In the same year I tried *La Grosse Sucrée* and *Marquise de la Tour Maubourg*, alias *Héricart de Thury*, and others kindly given to me by Mr. Gloede; but neither were equal to another of his gifts—namely, *Rivers' Eliza*, which for form of plant (tufted), cropping, flavour, and general good attributes is one of the best Strawberries to have.

As regards British Queen, she hates chalk and loves a ferruginous soil, such as Sussex, its paradise. She loves rich clay that requires a pickaxe to break up the ground; but I believe she may be grown successfully in light rich soil abounding in potash, which is the grand constituent of Strawberries. For this purpose night soil and cow manure liquid and solid are best.

Instead of *Carolina Superba*, *British Queen*, and *La Chalm-naise*, none of which like chalk, grow Dr. Hogg, and also try Mr. Radclyffe. In my opinion Dr. Hogg for all lands is the best representative of the British Queen.

I conclude with a selection of a few good Strawberries. Duke of Edinburgh (Dr. Boden), a well-formed Strawberry and of

superior flavour; Sir Joseph Paxton, Frogmore Pine, Dr. Hogg or Mr. Radclyffe, or both; Rivers' Eliza, Coombs, and Wonderful. For white produce, a most beautiful Strawberry, Biston White Pine, of apricot flavour when well ripened and yellow. It is also called Barnes's Large White; but it, the Hautbois race, the Alpines (Galande Red is best), Frogmore Late Pine, and Underhill's The Lady require to be highly ripened in order to be good. Leaving out the Hautbois race, of which Rivers' Royal Hautbois is the best to have, but not richer than the Black Hautbois, the Frogmore Late Pine when highly ripened, which is rarely the case, is the finest flavour of all.—W. F. RADCLYFFE.

#### CHESTER: A VISIT TO THE NEWTON NURSERIES.

THE old-established nurseries of Messrs. James Dickson and Sons are situated near to the Chester Railway general passenger station, and are readily reached by a new route which the Messrs. Dicksons have made for the convenience of visitors. The nurseries may also be reached in a few minutes from the Northgate Street station.

The main entrance to the nurseries is by a broad walk or drive, and on both sides are planted choice specimens of the plain and variegated kinds of Hollies and other ornamental shrubs. Hollies in particular were noticeable for their symmetrical shape and robust health. Intermixed with the shrubs were a choice collection of Gladioli, for which this nursery is famous, just coming into bloom, the spikes being from 4 to 5 feet high.

Attention is next directed to the plant houses, which contain a large and choice collection of stove and greenhouse plants, very clean and healthy and of a portable size, including Orchids and an assortment of Palms. This is a very suitable class of plants for dinner-table and house decoration, for the hardier kinds are found to succeed better in close confinement than many other kinds of plants.

Special attention is paid to Vines in pots, the present stock consisting of about two thousand fruiting and planting canes; and it is worthy of remark that thrips, red spider, and mildew are unknown throughout the entire stock. The pot Vines here are not drawn up in bottom heat and are not grown too thickly together, which is very important to the future well-being of the Vines.

We next come to a grand lot of tree Ferns. *Dicksonia antarctica* is of large size, with stems varying in height from 8 feet to 8 feet; these have been recently imported, but are thoroughly established. These are fine objects for conservatory decoration. One house contained a choice collection of succulents in various sizes. In a cool house is a fine collection of *Lilium auratum* in great variety. How is it these grand flowers are not more generally grown? In cold pits were a good collection of soft and hard-wooded Heaths and Epacris, for which, judging from the quantities grown, there is a great demand. Hardy Ferns are also grown. In order to meet the demand for hardy herbaceous plants these plants are extensively grown here. Of border Phloxes there is a good assortment: these are always in a moveable state, being grown in pots and plunged in quarters. There is also a fine collection of Chinese Pæonies, which ought to be grown by everybody who possesses a garden.

Owing to these nurseries being on such a large scale it is impossible to go into details, and it must suffice to point out a few leading features.

The stock of Roses consists of about fifty thousand standards and half-standards, and about the same quantity are grown on the Manetti stock and on the cultivated Briar, also a great number are on their own roots. In the fruit-tree department there is a large stock of well-grown and well-trained trees, and there is no trace of American or any other blight. The trees are grown in forms to suit the different requirements, from the highly trained wall standard to the diagonal cordons for walls, &c., to the single and double horizontal cordons for edgings of borders and low walls. The stock of fruit trees in a saleable condition extends over ten acres of ground, and they are all worked on stocks grown in the nurseries. Upwards of a hundred thousand fruit trees are either budded or grafted annually.

Forest trees are extensively grown. Of Larches there are upwards of twenty-five millions! Others are in like proportion. All are frequently transplanted. When planted singly in exposed situations the Syamora is well adapted for growing in the bleak districts of Wales. It will grow in almost any

kind of poor gravelly soil. The Lime is extensively grown chiefly the red-twigged variety; these are raised from layers so that the stock may be relied upon as being true. This is very important in avenue planting, so that one tree does not outgrow that of its neighbour. My experience of this variety is that it will succeed in poor gravelly soil, and will carry its foliage well on in the autumn, which is not the case with the common variety (*Tilia europæa*). Many thousands are raised annually—a proof of its popularity.

*Cedrus deodara* and others of the genus are extensively grown from the seedling to the well-grown specimen. The present stock is about 10,000. Of *Aucuba japonica* there are something like 15,000. They are raised annually. They succeed well in smoky districts of the manufacturing towns. The soil of the Rhododendron quarter is a light sandy loam, and seems well adapted to their growth. Of *B. ponticum* there is a fine lot, for which there is a great demand for game-cover planting; and from the fact that they are not grown in peat they are enabled to thrive well when planted out in any ordinary light loamy soil or shale. There is also a good collection of hybrid kinds, something like six thousand plants being propagated annually. Hollies are a special feature, and consist of the best kinds in cultivation. Noticeable was a variety named *minoros*, of robust appearance, which is valuable for planting near the sea-side, as it stands the sea breeze so well on the Welsh coast. The stock of Hollies consists of many thousands, the Gold and Silver kinds being especially good; some were good standards 8 to 12 feet high, with from 4 to 5 feet clear stems, suitable for specimens in open quarters.

Of hardy Conifers, *Abies Douglasii* is of rapid growth and makes a fine ornamental tree. It is thoroughly hardy, and will grow freely in almost any kind of soil, and is worthy of more extended cultivation; it is one of the noblest and most beautiful of the Fir tribe. *Abies nigra* is also good. There is also a fine stock of *Piceas* (Silver Fir) *Nordmanniana*, *grandis*, and *nobilis*; these grow into fine trees. *Cupressus Lawsoniana erecta viridis* also demands notice, for it is one of the finest hardy evergreens in cultivation; for symmetry and beauty it has no rival. This variety possesses the peculiarity of being green to the very stem. *Cupressus stricta* is also very handsome and distinct, and forms beautiful pyramidal trees resembling the Irish Yew, which makes it valuable when grown as a single specimen on lawns. *Cupressus lutea* is a beautiful golden variety. *Thuja borealis* is certainly the best of its class, and is well adapted for growing as single specimens; it is thoroughly hardy. *Thuja gigantea* makes a noble tree; it is also perfectly hardy. *Wellingtonia gigantea* is extensively grown. Although hardy, it is always better to plant it where it can be sheltered from cold winds. There is also a fine stock of the Austrian Pine, which is one of the hardiest of the whole tribe, it is well adapted for planting in exposed situations, and grows freely in the poorest of soils. *Spiræa salicifolia* is extensively raised for game-cover planting and for hedges on the Welsh mountains where the Quick will not succeed. There is also a good collection of Ghent *Azaleas* suitable for either forcing or for early bloom in the greenhouse, or to be grown out of doors to bloom in their natural season; many of them are deliciously scented. Of Ivies there are sixty varieties. *Hedera conglomerata* and *H. dentata* are two beautiful new varieties worthy of notice. The Gold and Silver variegated kinds grown in pots and trained to trelliswork are very effective for conservatory decoration in winter. There is a good collection of Willows of the scarlet, purple, black, and yellow-barked kinds. These have a very pretty effect when planted in masses on the margins of lakes or rivers. There are also some fine specimens of the Kilmarnock and American Weeping kinds. These are grown as standards, and are well adapted for growing as single specimens on lawns.

These nurseries are upwards of 200 acres in extent, are in admirable order, and reflect much credit on the able foreman Mr. James Boyd. An immense export trade of fruit and ornamental trees is carried on by this firm.—G. R. ALLIS.

**RIPEN STRAWBERRIES IN OCTOBER.**—My gardener pulled to-day (October 18th) a small dish of Black Prince Strawberries grown in the open air under a wall facing south. They were well coloured and of very fair flavour, but not equal to the summer-grown berries. The same bed bore a good crop this year, gathered early in July. Had it not been for the heavy rainfall we had last week I should have had a considerable quantity. This is a very unusual occurrence in such a cold climate as

we have in the north, and certainly says much for the pure air we have in this suburb of "smoky Newcastle."—THOMAS ADAMSON, *Springfield House, South Gosforth, Newcastle-on-Tyne.*

### GRAPES AT THE EDINBURGH SHOW.

As an exhibitor of Grapes and frequently a judge I see no difficulty whatever about what constitutes a bunch and what does not; but there exists, nevertheless, a wide difference between a true bunch and such monstrosities as are met with, and which are not so uncommon as many would seem to surmise.

A true bunch of Grapes is produced directly and immediately from any single bud of a Vine, but it should have no extraneous—no additional growths, either in the shape of wood or leaves; because wherever these are permitted the bunch ceases to be the outcome of a pure fruit-bud, and, being a mixture of wood and fruit-buds, becomes a monstrosity.

You must not define what shape a bunch should be: hence to aver that a simple bud may not push forth a stem, split, and branching into duplicate stems, is an incongruity, provided always these duplicate stems have an immediate and indivisible base origin—that is, come together from the eye. By the weight and finish of the legitimate produce of such alone is real skill in culture shown.

Where, however, an accidental or adventitious bud pushes forth a mixture of wood and flowers, the latter in duplicate bunches close together, even if the wood growth is removed to influence the whole in forming one huge mass of Grapes, these cannot be called a bunch, but is the aggregate produce of a twin branchlet, fasciated or otherwise.

As this subject seems so indifferently understood I send a sketch (fig. 80) of a monstrous and improper bunch, which may occasionally, however, be considered a true one. A growing shoot was pinched off in its very infancy as marked at *a*. The berries, nevertheless, could have been so arranged as to cover this, and thus what are two bunches be made to appear as one!

Finally, in regard to the two bunches lately shown, I think some of the controversialists may overlook the fact that judges' decisions are final if no complaints were made within reasonable time after the decisions.

I do not believe the Judges acted unjustly even, and it becomes probable they erred in judgment or by oversight; but if any accident happened to either bunch during process of weighing it will conduce to better understanding and greater satisfaction if they communicate together and see whether some statement may not be tendered to lessen the irritation which exists.—WILLIAM EARLEY, *Valentines.*

Fig. 80.

I AM truly sorry that any unpleasantness has arisen about the large bunches of Grapes. There are several points I can clear up to show that I fully believe the Show from first to last was conducted in a perfectly honourable way. In the first place, I believe that no one was admitted except the Judges, Stewards of the Show, and members of the Committee; and to prove what I say, a friend of my own—a gardener and a member of the London Pomological Society—who travelled down with me in the train from London, came to take a hasty glance at the Show about 7 A.M., because he was obliged to start with the train soon after eight, he was bundled out as soon as it was found he was not in office.

Now comes the subject of weighing the Grapes. I saw them weighed, and nothing could be fairer than the way it was done, and I do not believe a person was present but those I have mentioned, but I will not be positive on this head, and certainly no Grapes could be more carefully handled and more tenderly dealt with. Then as regards the photographing: that was done to oblige the proprietors of the *Gardeners' Chronicle*, and they were carried near to the window for light. I certainly did not see the slip mentioned by Mr. Dickson. With regard to the clapping of hands, that was not done in any

party spirit. It was simply an outburst of enthusiasm when the noble cluster turned the scale at 26 lbs. I beg of Mr. Dickson not to think that we had any spite towards him. I for one have never seen, to my knowledge, either him or Mr. Curror, consequently could have no selfish interest in the affair.

Now comes the question, Was it one bunch or two? I was under the impression it was one, and am still; but of this I think the three gentlemen who acted as Judges, and the Judges for the Veitch Memorial Medal who followed them, can of course easily settle that point.—ONE OF THE FRUIT JUDGES, BUT NOT OF THE LARGE BUNCHES.

### NOTES AND GLEANINGS.

THE FUNDED STOCK of the Gardeners' Royal Benevolent Institution has been increased by the sum of £200, making the total amount now standing in the names of the trustees £10,600.

MESSRS. JAMES VEITCH & SONS have decided to hold another of their series of FRUIT SHOWS next year, and to repeat their former schedule. It will be held in the garden of the Royal Horticultural Society at South Kensington, simultaneously with the Society's Show on the 19th of July.

WE have had many inquiries about the FRENCH PRUNING SCISSORS recommended by Mr. Taylor a week or two ago, and we are now informed that they can be had of Mr. Fisher in Fleet Street. This useful and invaluable little tool is the *secateur* of the French, and may be carried in the pocket as conveniently as a pruning-knife, and the amount of work that can be performed with it is much greater and done with greater ease to the operator than by the ordinary pruning-knife. We annex an illustration, which will give our readers an idea of it. It is represented as being open in the cut.



Fig. 81.

WE are authorised by Messrs. Hooper of Covent Garden, to announce that all competitors for their POTATO PRIZES at the forthcoming Great Fruit Show of the Royal Horticultural Society on the 10th November, must deliver their Potatoes at South Kensington not later than Wednesday the 3rd, as the weighing will take place on the 4th.

MR. WILLIAM BULL has again offered his prizes of silver cups to be competed for at the GREAT SUMMER SHOW on the 7th and 8th June, and at the Provincial Show of the Royal Horticultural Society in 1876.

MESSRS. SUTTON & SONS of Reading have intimated their intention of offering a series of PRIZES FOR VEGETABLES in seven classes at the great show of the Royal Horticultural Society to be held in 1878. These prizes will be open to the competition of *bona fide* gentlemen's or noblemen's gardeners or gentlemen amateurs.

MR. JACKSON, gardener to Col. Smyth, Walton-le-Wold, Louth, has sent us flowering spikes of *Polygonum amplexicaule*, introduced by Col. E. Smyth from India four or five years ago. He finds it perfectly hardy. For out flowers he justly thinks it very suitable, especially for the vase. The plant this week had 130 spikes in flower, and has been full ever since July. No wet seems to injure its bloom. Dr. Hooker sent for a plant in exchange for Saxifrage last year.

THE death is announced of SIGISMUND RUCKER, Esq., and in him has passed away one of the most liberal patrons of gardening. He died, aged sixty-six, at his residence West Hill, Wandsworth, on the 19th inst. Every branch of floriculture he loved and pursued ardently, but Orchids were his special favourite. His collections—for he made more than one—were rich and admirably cultivated, so that he well deserved to have his memory made prominent in the name of one species—*Stanhopia Ruckeri*. He was at one time a member of the Council of the Royal Horticultural Society. We know the intimate friend of Mr. Rucker who wrote as follows in one of the morning papers:—"No expense was spared in keeping up his collections, and his tact and temper always secured him the aid of first-class head gardeners, but he was his own chief gardener. Those who have been privileged to accompany him on his evening inspection of his plants by lantern light are aware how thoroughly and intimately he knew them all. His gardens, always open to those who

studied or valued plants, have taught many most valuable lessons. His death makes a blank no living orchidist can fill. In private life the charms of his conversation, assisted by his wonderful memory and quickness of thought, his unvarying kindness of disposition, and quiet and unostentatious readiness to help with kind offices or charity, made him beloved alike by rich and poor.—G. F. W."

### STRAWBERRIES PRODUCING TWO CROPS ANNUALLY.

A FRIEND of mine had last year some Strawberry plants that had a very good crop in June, and fruited again abundantly in October and November. I saw them, and the fruit in the autumn was really very abundant on every plant. He gave me some runners, and they had a good crop in June, and have now fruit and bloom. I gathered some last week nicely ripe; but the weather is so unfavourable I cannot expect many now.

I thought if I prevented them fruiting in June, perhaps they would fruit a month earlier or so, and then the weather would ripen them. Would you be kind enough to say what you think in the *Journal*? Of course they are in the open air (no protection).—G. C., *Bramley Hill, Croydon*.

[You can obtain inch bones from any of the manure dealers.]

### A PLAGUE OF ANTS.

A LADY, who resides in South Kensington near the Horticultural Gardens, writes that "a perfect plague of small white ants have invaded the lower part of this house—kitchen, pantry, &c., and we are making fierce war upon them by stopping up all holes with putty and repainting the woodwork. I hope this may be effectual without more poisonous remedies. Are white ants natives of London, or have they emanated from the Indian Exhibition at the International?—C. M."

[I presume that the small white ants mentioned in the accompanying letter are not what are ordinarily known as white ants—that is, a species of the very destructive genus *Termes*, but the too common domestic ant, which appears now to have become domiciled in various parts of England, and especially in London. If my supposition be correct, there are two plans which may be advantageously adopted for their destruction. If the entrance to their nest in the brickwork of the walls of the house can be discovered, rags dipped in turpentine thrust into the mouth of the hole will kill them. If this cannot be discovered, bits of raw meat should be laid in their tracks; this will attract them by hundreds, and the meat should then be dipped suddenly in boiling water.—L. O. W.]

### NOTES ON VILLA AND SUBURBAN GARDENING.

#### KITCHEN GARDEN.

TAKE every favourable opportunity to finish earthing the late rows of Celery; through so much wet the soil of that which was previously done will have settled down so much as to need more earth. Our plants were at one time much affected by the maggot in the leaf, which threatened to destroy some of the plants. A regular course of hand-picking has pretty well cleared them off it, and during the past three weeks the plants have grown with great vigour, and more earth than usual is this year necessary. We have a row growing by the side of an Apple tree, the leaves of which have been affected seriously with a kind of spot which fell early upon the Celery and communicated the disease to the plants, which nearly killed most of them at that spot, but not elsewhere. This being an early crop it was dug-up before the Celery was quite useless.

In dry days also earth-up Coleworts and late-planted Kales, and plant-out Red Cabbage plants adjoining the winter or spring bed. If this cannot be done now defer it till the spring. There is this fact to be remembered—that autumn plants produce the largest heads, which is a consideration with some growers. Asparagus tops should now be cut off, and the beds cleaned and dressed—that is, by first putting a thin layer of rotten manure on the beds, and then covering that with a layer of earth taken from the alleys between them; then cut down the sides to their proper width, and leave them for the winter. In the spring much of this covering of earth must be raked off, but if possible the manure should be left to benefit the plants during summer.

Veitch's Autumn Cauliflower from late planting will now be coming in well; these must be cut before being injured by frost, as the flavour is much impaired by too low a temperature.

My plan is to pull or dig each plant up by the root, and take them to the root shed, and lay them in earth, where they keep well, and if the season is favourable Cauliflowers may be had up to the time when Broccoli is ready for use. All vacant ground should now be cleared, and manures be in readiness to wheel on at the first opportunity, ready for trenching-in when the leaves have mostly fallen.

#### FRUIT GARDEN.

With me many sorts of Apples are not keeping well, but Pears keep better and are larger than usual; therefore it will be necessary to frequently look over the stock and pick out those affected for immediate use. It is time to think about planting fresh trees of any sort that may be required. I advocate early planting—that is, plant as soon as the wood is properly ripened, so that after planting it will not shrivel through the operation. Some sorts of Pears do not ripen-off so early as Apples, and should be left longer in consequence of their making more fleshy wood; however, the stations for them may be prepared, so that the planting may be done more expeditiously. The places should be dug up at least 2 feet deep, and if there is a clayey subsoil sufficient of it should be removed in order to put in a little drainage and replace the clay, if possible, with better soil. It is not advisable to make the soil too rich at first, for, as a rule, young trees make a sufficiently vigorous growth without a stimulant for the first year or two. In most cases it is better to trench-in fresh soil or manure after the tree has arrived at the fruiting state.

Strawberry beds should now be cleaned, and have a winter-dressing of manure; but young plants put out this year will not need this treatment. Those in pots for forcing ought to be induced to ripen-off a little before laying them up for the winter, by placing them on a dry bottom, and taking care that they do not root through the pots, and keep all bad foliage and runners cut off.

#### FLOWER GARDEN.

Delay no longer the work of putting in cuttings of *Calceolarias*, as frost may set in and destroy the plants. It is, however, just the time for the work, so that the cuttings may be rooted before the end of the year. They will bear a little cold and damp, consequently they do well if rooted in a cold frame. The work is done in this way: The frame is first placed on the ground and two-thirds filled with any rough material, such as siftings of soil, then a little layer of garden soil broken-up fine, and on this a mixture of common soil and sand sifted fine. This should be made firm, and the frame should be filled up to within 6 or 8 inches of the glass. The cuttings should be inserted 2 inches apart, affixing each one firmly. After all are in, water well, and afterwards keep the frame nearly closed night and day. They must not flag from the sun, or the chances are they will die. Sprinkle them occasionally and protect from frost, and they are about the surest thing to strike root that I know of. *Gazania*, *Pansies*, *Alyssum variegatum*, and the scarlet *Melindres Verbena* root well, and also keep well during the winter in the same way.—THOMAS RECORD.

### MR. THOMAS APPLEBY.

THIS veteran gardener died on the 20th inst., in his 80th year, at his residence, Park Avenue, Longlight, Manchester.

When this *Journal* was first published we sought the aid of one specially skilled in floriculture, and we obtained that aid from Mr. Appleby. To our first number, and for many years subsequently, he contributed "The Week's Flower Gardening." In the first of those contributions he wrote this sentence—"We have tasted its pleasures for nearly half a century, and are desirous to increase in others the taste. If we can make the culture of flowers more general, and the practice more easy, our object will be accomplished, and we shall think our attempt will have been a mite cast into the treasury of human happiness." That he did succeed our correspondent columns bore testimony, and the desire for information which he promoted he had there to satisfy. He was then manager of the Pine Apple Nursery at St. John's Wood. Previously he had been gardener to T. Brooklehurst, Esq., near Macclesfield, Cheshire, in the care of whose collection of Orchids he improved his knowledge of their culture so as to enable him to furnish that excellent series of communications to our columns which we have published since in the volume entitled "The Orchid Manual."

Mr. Appleby only ceased from being on our staff when his business engagements and declining health rendered his withdrawal imperative.

### ODONTOGLOSSUM HASTATUM.

THE *Odontoglossums* are the princes of the cool Orchid house—that is, a large proportion of the genus succeeds in

almost a greenhouse temperature. The most beautiful amongst them are adapted for the coolest house, such as *O. crispum*, *O. Pescatorea*, *O. triumphans*. Another section do best in a house with a temperature about 5° or 10° higher during the winter months. These comprise *Odontoglossum hastilabium*, *O. citrosmum*, and the subject of which the engraving is a very good illustration, *O. hastatum*. Like nearly the whole of the genus it succeeds best in a pot with plenty of drainage,

Fig. 62.—*ODONTOGLOSSUM HASTATUM*.

and the ordinary potting material of sphagnum and fibry peat.

*O. hastatum* is a Mexican species, and, like most of the introductions from that country, it does not require quite so much water at the roots, especially in the winter or at the time that the pseudo-bulbs are resting preparatory to the plants making a new growth. The *Odontoglossums* are not very subject to the attacks of insect pests, but green fly infects the flower-spikes,

and does some mischief before the flowers open; the best way is to brush the insects off.

#### NEAR AND AMONG THE ANTIEDILUVIANS.

No. 2.

In the graveyard on the north side of Lyme Regis church stands a common round-topped headstone in memory of Joseph



Anning, with this brief appendix—"Also of his sister MARY ANNING, who died March the 9th, 1847, aged 47 years." No memorial could be less attractive, and it seems very incongruous when you look inside the church at the noble window, placed there, to do her honour, by the vicar and a few members of the Geological Society. Yet it is not incongruous; for the headstone is the modest record by the relatives, and the window is the record of the estimation in which she was held by the public. The window includes medallion pictures of every form of benevolence—visiting and relieving the sick, the poor, the bereaved, and the imprisoned.

Mary Anning was a thoroughly Christian woman. Like another Mary—Mary Somerville, she neglected none of the duties of private life; and the science she loved, each fossil she found, served only as "records of God before the deluge." She was the daughter of a carpenter, left an orphan when only eleven years old, and as a mode of breadwinning she walked to the seashore to seek for some of the strange forms she had seen others seeking for. She found one, and returning towards home with it in her hand a lady saw it, and gave her for it half a crown. That decided her to pursue the researches which brought to her independence and fame—a fame so wide-spread as to justify her telling the King of Saxony, "I am well known throughout the whole of Europe."

A few months after her first "find" she saw in the lias strata the bones of some animal projecting. Men hired by her dug it out. She sold the skeleton for £23, and it is now that Ichthyosaurus so well known in the geological gallery of the British Museum.

She corresponded with Home, Buckland, Conybeare, De la Beche, and Cuvier; and the shop she established for the sale of fossils was the repository whence they and other students derived illustrative specimens. It was not until 1820 that Cuvier completed the designation of the structure of the Ichthyosaurus, so that ten years had elapsed during the research for its members—the same number of years as were occupied in the siege of Troy; and one of her admirers observed, "Miss Anning figured throughout—was, in fact, a Helen to the geologists."

Admiring Miss Anning's character both as a woman and as an indomitable geologist I inquired for her portrait, and was astounded by the reply that here none existed. This seemed so incredible that I sought out her nearest surviving relatives. One of these proved to be Mrs. Jerrard, the wife of a butcher; and on being admitted to her parlour I rejoiced no little to see a small oil painting of Miss Anning hanging against the wall. There was no mistaking it; the simple straw cottage bonnet, the sober-coloured dress, the large geologists' hammer in her hand, the basket for specimens on her arm, the kindly yet self-reliant expression, all coincided with the remembrance rendered faint by a lapse of about forty years. I obtained permission to have it photographed, and perhaps copies may be obtained from the photographer, Mr. Walter, at Lyme Regis. From that photograph the wood engraving accompanying these notes was taken.

Some one may growl forth the query, What has geology to do with topics appropriate for these columns? I reply, Much. Geology discovered the coprolites particularised in the first of my notes: it is, in other words, the natural history of our globe. Everything growing upon it is connected with geology. Every stratum has particular constituents; and a knowledge of this and of the nature of those constituents enabled M. Berthollet to double the produce from a poor soil by bringing to the surface some of the under strata. The geologist who led

to a supply of gypsum (sulphate of lime), without which no Clover will flourish, and he who warned cultivators against the employment of a limestone because it contained magnesia, are only a few instances justifying the American professor's thesis—"Geology has strong claims to regard on the ground of positive utility." All soils are formed from the rocks and strata of our globe; and as the strata are all arranged in a certain order, and as those associated often differ materially in their composition, the strata immediately beneath a cultivated soil may, and often does, contain constituents capable of improving it; and a knowledge of the strata is also one of the best guides in effecting drainage economically.

I once heard some quotation from Shakespeare to show that he had a knowledge of geology; but still more recently have I known a controversy and many quotations to show that the poet must have been of the military profession. I expressed a belief that he had a store of general knowledge which enabled him to write correctly on any professional topic. The reply to me was, "Perhaps you can show reasons to believe he was a gardener?" That quotations from his plays can be gathered

quite as strong to sustain such an opinion as there can to sustain the belief that he was a soldier, the following may suffice.

He names in most of his plays many flowers familiarly and their arrangement in "the curious knotted garden"—(*Love's Labour Lost*, A. i., s. 1). Of fruits he knew the popular names—"I'm withered like an old Apple-John," a variety now known as the Winter Greening—(*1 Hen. IV.*, A. iii., s. 8). His knowledge of fruit-culture was sound, for he warns against injudicious grafting—"Our scions put in wild and savage stock, sprout up so suddenly into the clouds and overgrow the grafters."—(*Hen. V.*, A. iii., s. 5). Further knowledge of fruit culture is evinced in these other passages—

"You see we marry  
A gentle scion to the wildest stock;  
And make conceive a bark of baser  
kind  
By bud of nobler race. This is an  
art  
Which does mend nature, change  
it rather; but  
The art itself is nature."  
—(*Winter's Tale*, A. iv.).

"We at time of year  
Do wound the bark, the skin of our fruit trees,  
Least, being overpruned with sap and blood,  
With too much riches, it confound itself."  
—(*King Richard II.*, A. iii.).

"All superfluous branches  
We lop away that bearing boughs may live."  
—(*King Richard II.*, A. iii.).

"Go, bind thou up yon dangling Apricocks  
Which, like unruly children, make their dams  
Stoop with oppression of their prodigal weight;  
Give some supportance to the bending twigs."  
—(*King Richard II.*, A. iii.).

—G.

## AGAVE AMERICANA SEED-VESSELS AMONG THE OFFSETS.

### DRACENA INDIVISA SEEDS RIPENING.

AN American Aloe has this autumn flowered at St. Michael's Mount. Among the ordinary suckers thrown-up at such times are many like the enclosed, which seem to be a regular seed-vessel and flower. [It was a perfect seed-vessel.—EDS.] This seems strange, as if the tendency to flower should be extended from its normal position down to the very roots. Before this expansion these sports have the appearance of an unfolded Crocus.

*Dracena indivisa* ripened its seeds out of doors here last year on a plant about 15 feet in height, and I have hundreds of young plants from this seed. It has been a wonderful year

Fig. 83.—MARY ANNING.

for sub-tropical plants. My *Hedysium flavum* and *Ossia corymbosa* have been glorious. For four or five years neither of these plants have suffered from winter.—W. W. WINGFIELD, *Gulval, Cornwall.*

### THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 5.

In a collection of old proverbs, or, as some people term them, "musty saws," this occurs—"Fear keeps the garden better than the gardener." I acknowledge at first sight this appears enigmatical. Of course the allusion is not to keeping a garden in order, but to its protection in some way. My interpretation of it is as follows: Many of the plots of land enclosed as gardens two or three hundred years ago were partly used for the cultivation of various herbs prized on account of their real or supposed medicinal efficacy. Some of these were foreign, grown from seeds brought home by the Englishmen who were then beginning to form that acquaintance with distant lands which has so largely increased of late years. Hence a thief, who might otherwise have been tempted to trespass upon a gardener's domain to carry off plants which he could turn into money, would be, according to the superstition of those times, afraid to touch them, because he attributed to them powers of which he knew but little. That at least is my explanation of the proverb; if anyone can bring forth a better I shall be glad to hear from him.

They were singular folk, many of them, the gardeners of the Stuart period; and perhaps modern horticulturists are scarcely ready to accept the fact that an enthusiasm in the matter of plant-cultivation was once deemed a species of craze. I think this arose from the fact that some of the hermits—men who, either in or out of monastic orders, chose to lead sequestered lives—occupied themselves in this pursuit, making a living occasionally by vending the vegetables they grew. This is not out of the line of our present subject, as I shall show, because as one investigates the history of the suburbs of London, particularly with regard to the old garden grounds, one discovers here and there traces of these hermits—men not positively lunatics, I suppose, yet like Hamlet cranky in certain states of the wind, and who found occupation and solacement thus. The world generally was well content to leave them alone; and if, as it occasionally appears, they took possession of a plot to which they had no right, land was not then valuable near London.

In my preceding article I made reference to Clerkenwell and some of its old nurseries and gardens. Not very far from Clerkenwell Green, and in proximity to Smithfield, is the Charterhouse with its enclosed ground, which had, even at the date of the battle of Waterloo, an outlook towards the open country to the north. It is still a debatable question whether the piece of land originally called "No Man's Land," and afterwards in the occupation of the Carthusian monks, was or was not the plot purchased by Sir Walter Manning, in which many thousands of persons were buried during a visitation of the plague in the fourteenth century. To us it is of curious interest for this reason, that a writer on the history of Middlesex expatiates on the beauty of this spot and the flourishing condition of the trees and plants growing in the locality, which might be attributable to the enrichment of the soil by this multitude of dead. Besides the land belonging to the Charterhouse, and for centuries cultivated as a garden, there was an enclosed garden, a kind of nursery of the period, and called the "Brikes," mentioned in a deed of sale dated in the seventh year of Queen Elizabeth. The Wilderness, which, like some other places of the like name, was not a wilderness at all, but a piece of ground planted with some regularity by one or other of the noble residents there, said in a rare tract of 1707 to contain various scarce trees and shrubs, before it became a charitable institution, and was one of the early examples of an attempt at ornamental gardening. The appellation "Wilderness Row" still survives, but few trees to which we can assign a date of any antiquity. "One swallow does not make a summer" it is true, and one Pear tree does not represent an orchard necessarily; and yet I think "Pear Tree Street" not far distant tells the story of a long-surviving Pear tree which escaped the fate of its brethren in the orchards that formerly laid to the east of Clerkenwell. Possibly, as there is a "Cherry Tree Alley" in Bunhill Row near the Artillery Ground, the orchards extended in that direction also. But a little farther north there were marshy fields which it was hardly likely that anyone would plant with fruit trees, near

"Holy-well" and other springs, where Willow Walk and Willow Street tell a tale of the times when Finsbury was really "Fensbury," and only good for archery.—C.

### THE EFFECT OF DIFFERENT STOCKS ON GROS GUILLAUME GRAPE.

We have this Grape—so long misnamed Barbarossa—in two different houses grafted on the Muscat of Alexandria, and in another and cooler house on Black Hamburg roots. In the Muscat house, and in the cooler Hamburg house, we have it also on its own roots. The results under these three conditions are strikingly different. In both houses on the Muscat stock it swells its berries much more regularly and to a larger size than it does on its own roots in the same house and on Vines of the same age. In the cooler Black Hamburg house it neither makes such large berries nor bunches, but it colours much more rapidly than in Muscat temperature on the Muscat stocks, or than it colours on its own roots in either house. We have one vigorous Vine on its own roots, in which there are just two moderate-sized bunches; but these two bunches are not nearly so fine in berry as bunches four times their size on Muscat roots under heavy crops. We consider this one of the noblest-looking, and in every respect one of the best late Grapes in cultivation; and to those who wish to grow it to the greatest perfection in bunch and berry as well as high finish we would say, Graft it on a Muscat in a Muscat temperature, and allow the stock at the same time to develop either one or two bearing canes, as well as the graft of Gros Guillaume. It must be added that it fruits more freely under close pruning on the Muscat than on its own roots or on the Black Hamburg.—D. T.—(*The Gardener.*)

### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

#### HARDY FRUIT GARDEN.

MANY persons leave the fruit of late Pears on the trees until the middle of November, when frosts hold off, but fruit left upon the trees until so late in the season is not likely to ripen well. It will answer to leave fruits of all the kitchen sorts as long as possible, as the longer the fruit hangs firmly to the trees, and the leaves remain healthy, so will the fruit increase in size. We have had Uvedale's St. Germain hanging until the middle of November, and it will, perhaps, hang so late as that this year. All Pears intended for dessert purposes should be gathered by this time. Much that has been gathered shows signs of not keeping well, therefore it is the more necessary frequently to examine the fruit, and let all the decaying specimens be removed from the house at once. Damp and mould cause decay even if they do not apparently come in contact with sound fruit. The best way to store Pears is to lay the fruit down carefully one row deep, but in many instances it will be necessary to place another layer over the other. Apples, if intended for exhibition purposes, should be allowed to remain upon the trees as long as they are likely to increase in size, but they must be protected with nets to prevent birds from pecking them. The birds may just pick a small hole in the fruit, but from this small point decay will commence, and in a very short time the fruit is a mass of decay. As the fruit is gathered it must be carefully named.

All the fruit intended to keep late should be placed in a cool room, and the atmosphere ought not to be so dry as in the place where fruit is ripening. Apples keep well under the same circumstances as Pears. We have kept fine specimens for a special purpose in boxes of dry sand. Each fruit was wrapped up in paper, a layer of fruit was laid in the bottom of the box, and all the interstices filled in with white sand, a second layer of fruit was then laid over the other, sand was filled-in in the same way, the process being continued until the box was filled. Apples keep clean and free from taint in this way for a long period.

In wet weather nothing can be done in the way of planting, and it is a question whether any good can be done at trenching. Our own opinion is, that it is the most profitable way to discontinue working on the ground altogether when it is saturated with wet. It is a good opportunity to clear the weeds from walks and Box edgings, and all gravel walks may be rolled and made comfortable for the winter.

Those who contemplate making a plantation of Raspberry plants this season should make arrangements at once. The Raspberry delights in a deep, rich, unctuous soil, and will do better in a shady position than any other of our fruits. After the position for the bed or quarter has been determined the ground should be trenched about 2 feet deep, and plenty of rich manure should be incorporated with it during the operation. Any fine day after this the ground will be ready for planting. This to a certain extent may be done according to the taste of the owner.

The best way is to plant in rows 4 feet apart, and at the distance of 2 feet between the plants in the rows. A stout stick is driven into the ground at the end of each row, and about 4 feet 6 inches out of the ground; a stout wire is strained between the two sticks near the top, and another wire is strained 1 foot 3 inches lower; to these wires the Raspberry canes are trained about 6 or 9 inches apart. An easy way is to plant out 8 or 9½ feet apart; the canes, four or five from each stool, are tied together at the top, and two plants are made to meet together in the form of an arch. It is a rude way, and the most is not made of the ground. Its advantages are that no sticks are required, and the training is easily done. The planting should be done as soon as convenient. The best sort for general purposes is the Fastolf. Carter's Prolific and Fillbasket are also sorts with large fruit, and very free-bearing. A few plants of Yellow Antwerp should be planted, as they are useful as a dish for the dessert. The October Red, and Yellow may be planted for the same purpose, but they may only be looked at, as they seldom have any flavour.

#### FRUIT AND FORCING HOUSES.

**Vineries.**—We require to look very carefully over the bunches, as the berries are so apt to become mouldy, and if these are not removed at once decay quickly spreads. The leaves are now falling rapidly, and these must not be allowed to litter on the ground. All that are decayed we remove from the Vines by hand. On some of the Vines bunches of laterals have been formed beyond the bunches; these we can now cut away to one leaf from the bunch, which will further promote the circulation of air and light amongst the berries. If the day is fine, with sunshine, we throw open all the ventilators and have a good heat in the hot-water pipes, stopping it off again about one in the afternoon; by shutting-up time the pipes are cooled down and the ventilators are closed till morning. But suppose there is a change in the weather next day, a drizzling rain, a leaden sky, a thick fog, or what is as bad, a thick close moisture-laden atmosphere: well, we look inside the viney, the air is clear and dry, we do not open the ventilators in the morning, nor at noon if the sun does not come out, the pipes are kept quite cool, and ventilating the house would only let in damp. If the pipes were heated and air admitted more harm than good would arise from it.

We have taken advantage of the wet to have the early houses washed, the Vines washed and cleaned, and the borders renewed. The instructions for this are the same that have been recorded every season; still we would urge the necessity of thoroughly clearing off all the loose bark from the Vines without scraping it quite into the inner bark. Indeed we always think the Vines are injured when we see the old bark quite peeled off all over the house. It is not necessary to do this, but it is quite necessary to clear away all loose or superfluous bark about the old spurs. All these require to be very carefully cleaned. A little extra time now, when time is not so valuable to a gardener, will save days of anxiety, and oftentimes fruitless labour at a time when work is pressing on all hands. After sponging the canes well with strong soapy water, pressing it into all the crevices, then paint all over the young and old wood with the usual mixture. Those who require Grapes early in April will now be starting their Vines; let it be done very gradually at first, and without any artificial heat when the weather is fine.

#### MUSHROOM HOUSE.

The beds will now be in good bearing state, or showing signs of the coming crop by the surface of the bed becoming marked in places with a white substance, from which the tiny Mushroom forms itself, and then the numerous dots rapidly increase on those white patches. In other parts of the bed single specimens start up, or patches of three and four together. The largest Mushrooms are obtained when they come very thinly, the thick patches furnish quantities of "buttons." According to the state of the bed so will be the quality of the Mushrooms. If the bed is dry the crop will be tough and leathery; but the state of the bed must be seen to as soon as the Mushrooms appear. After the first gathering, water with tepid water, say 75° or 80°, and if the atmosphere of the house is naturally dry place some clean straw over the surface to retain moisture. Those who have to maintain a succession of Mushrooms through the winter months will have one bed ready to make up when the other comes into bearing. Even under the best management Mushroom beds are uncertain both in the quantity, produce, and length of time they continue in bearing. Sometimes the spawn is not so good one time as it is another, nor is it possible to have the beds to heat just as they are wanted. Notwithstanding all this, a good grower can generally tell at the time of spawning his bed how the crop will turn out—that is, presuming the spawn can be depended upon.

#### GREENHOUSE AND CONSERVATORY.

Chrysanthemums are now coming into flower, and we depend upon them for the next six weeks to supply us with nearly all the flowers required. We grow over 150 varieties, including some of all the different sections, and as they are trained and arranged in many different ways an excellent effect can

be produced. What the Chrysanthemum requires is to be potted in rich clayey loam, and to be well supplied with manure water from the time the buds set until the flowers open; if this is done the flowers are rich in colour, with stiff, enduring petals. Mildew is the worst enemy at this time, and most persistently attacks the leaves; as a preventive we dust all the leaves with flowers of sulphur as the plants are brought into the house; this will keep the enemy at bay for a long time, and should the disease spread further another application of sulphur will destroy it.

Tree Carnations have been taken in from out of doors, and are now showing abundance of flower from cuttings reared in March. The variety Miss Jolliffe put in at that time and grown on freely makes splendid plants for cutting flowers from. It is now to be seen in Covent Garden Market beautifully in flower. Very useful at present are the *Bouvardias Vreelandii* and *longiflora*; the plants have flowered all through the autumn months out of doors. Late plants taken into the greenhouse or conservatory will continue to produce flowers until Christmas. *Cyclamens* are throwing up hundreds of flowers. It is necessary to remove any decaying leaves or stalks from the plants at once; but it ought not to be necessary to remind all who have charge of hothouses at this season to keep all the plants clean and free from decaying leaves and flowers. We are tying and training specimen plants as opportunity offers.

#### FLOWER GARDEN.

It is no use trying to do anything here while walks and grass are surcharged with water. We swept up littery leaves where they were an eyesore, and as soon as it is possible to wheel barrows over the ground the flowers will be cleared off. The *Gladiolus* roots are being lifted, but we had to discontinue the work owing to the wet.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

JARREY.—Chrysanthemums November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

LOUGHBOUGH.—November 15th and 16th. Mr. W. Pallatt, 55, Baxtergate, Sec.

NORTHAMPTON (Chrysanthemums). November 16th and 17th. Mr. N. Gutteridge, 51, Denmark Road, Sec.

### TRADE CATALOGUES RECEIVED.

J. C. Wheeler & Sons.—Catalogue of Fruit Trees, Roses, Ornamental Shrubs, Flower Roots, &c.

G. Prince, 14, Market Street, Oxford.—Catalogue of Roses.

G. Cooling, 18, Broad Street, Bath.—Catalogue of Hyacinths and Roses.

A. M. C. Jongkindt-Coninck, Tottenham Nurseries, Dedemsvaart, near Zwolle, Netherlands.—Wholesale Trade List of Fruit Trees and Roses.

J. B. A. Deleuil, Marseilles.—Catalogue of *Amaryllis*, *Begonia*, &c.

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

SEEDLING PEAR (*Burghley Gardens*).—The fruit received is very fine indeed, and a Pear of the first quality.

PEARS AND PLUMS ON EAST WALL (P.).—Any of those in your lists will ripen on an eastern aspect, but not on a northern.

GRAPES AT THE EDINBURGH SHOW (D. E. and others).—We cannot insert any further communications on this subject. The question "What is a bunch of Grapes?" is quite another subject.

EARLY PEARS—SALSAFY COOKING (H. S. F.).—Summer Doyenné, Citron des Carmes, Jargonelle, Williams' Bon Chrétien, Beurré d'Amans, and Summer Thoma. After you have scalded the Salsafy drain it, fry it lightly in white sauce, let it cool, then dip it in the white sauce and fry it again.

JOURNAL OF THE ROYAL HORTICULTURAL SOCIETY (*Anonymous Inquirer*).—It is not now published. As to the back numbers, Messrs. Rankin & Co., Drury House, Drury Court, Strand, who were the publishers, can give you information.

SAVING FUCHSIA SEED (P. T. B.).—As the seeds are enveloped in a pulp, it is necessary, in order to preserve them, to cleanse them effectually. This is done by washing; bruise the berries with the hand, and mix them with water; as soon as the pulp is all washed off, pass the liquor through a hair-sieve fine enough to catch the seed, wash it repeatedly till it is quite clean, then dry it gradually; put it up in brown paper, and keep it in a dry room till spring. Sow it early in March in a mixture of light sandy loam and peat, cover slightly, and place the pots in a gentle hotbed. When the seedlings are half an inch high transplant them in rows across pots 5 inches wide—these will hold about twenty or thirty plants each, and then replace them in the hotbed. In these pots they may remain for a month or six weeks, and then they will require potting-off singly into 8-inch pots.

**FAMEUSE APPLE (G. B.).**—This the synonyme of De Nèige; the following is the description given in Dr. Hogg's "Fruit Manual":—"Fruit about the medium size, 2½ inches broad and 2 inches high; roundish, sometimes oblate. Skin tender, smooth, and shining, of a beautiful pale waxen yellow colour, tinged with pale red on the shaded side, but covered with deeper red on the side next the sun. Eye small, half open, and set in a shallow and plaited basin. Stalk half an inch long, inserted in a round and pretty deep cavity. Flesh pure white, very tender and delicate, sweet, and pleasantly flavoured. A very beautiful Apple, but not of great merit. It is for dessert use, and is in perfection from November to January. The tree is of a small habit of growth, hardy, and bears well; but in some soils it is liable to canker. This variety is supposed to be of Canadian origin, and was introduced to this country by a Mr. Barclay of Brompton, near London. It is grown very extensively in Canada, and is very highly appreciated."

**INTRODUCTION OF RHUBARB (J. F. N.).**—Gerard, in 1873, mentions that one species was then used as a pot herb like Spinach.

**GLADIOLUSES AND HOLLYHOCKS (A Young Gardener).**—To print the names of the numbers you name would require us to copy the whole in a florist's catalogue. Obtain one of these and select for yourself.

**HYDRICUS STYLACUS PROPAGATION (Amateur in Trouble).**—This is the *Althaea frutex*, which flowers in August or late summer, continuing up to frost. It is propagated by layers which may be made now, or cuttings of ripe shoots now under a handlight, not to be removed until the weather becomes warm. It is a very handsome plant, especially the double variety, and requires a rich light soil and a warm sunny situation.

**FRUIT TREES FOR A GARDEN (T. Taylor).**—Pyramid fruit trees answer well, but Peers and Apples, if you are in an open position, may be best as espaliers, being in that form more secure against winds. They may be trained upright to wires a foot apart, and 6 feet high or less, or horizontally, but the upright is certainly best for Peers. Pyramids or bushes, however, answer. *Peers*.—Doyenné d'Été, Jargonelle, Beurré de l'Assomption, Williams's Bon Chrétien, Souvenir du Congrès, Beurré Superfin, Louise Bonne de Jersey, Beurré Hardy, Marie Louise, Thompson's, Beurré Boes, General Todleben, Doyenné du Comice, Beurré Dial, Beurré Baschallier, Beurré d'Arenberg, Glou Morceau, Zéphirin Grégoire, and Bergamotte d'Espérance. *Steering Peers*.—Catillac and Verulam. *Apples*.—Desert—Mr. Gladstone, Red Astrachan, Summer Golden Pippin, Red Quarrenden, Mother Apple, Pine Golden Pippin, Margil, King of the Pippins, Cox's Orange Pippin, Ribston Pippin, Golden Pippin, Beauré Nonpareil, Court of Wick, Duke of Devonshire, Melon Apple, Mannington Pearmain, Reineette du Canada, and Sturmer Pippin. *Kitchen Apples*.—Kewick Codlin, Lord Suffield, Cox's Pomona, Maux Codlin, Blenheim Orange, Gravenstein, Warner's King, Mère de Menage, Dumelow's Seedling, Bedfordshire Foundling, Northern Greening, and Gooseberry. *Dessert Pines*.—Early or July Gage, Golden Gage, De Montfort, Green Gage, Golden Espérance, Jefferson, Kibrie's, Transparent Gage, and Cox's Golden Drop. *Kitchen Pines*.—Early Rivers, Diamond, Prince Englebert, Victoria, Pond's Seedling, Yellow Magnum Bonum, Cluster Damsel, and White Damsel. *Cherries*.—Empress Eugénie, May Duke, Royal Duke, and Nouvelle Royale, with Kentish and Morello for culinary purposes. *Gooseberries*.—Yellow Champagne, Green Gage, Keen's Seedling, Red Warrington. *Large kinds*.—Red-Crown Bob, Prince Regent, Hopley's Companion. *White*.—Ostrich, Sheba's Queen, Wandering Girl. *Green*.—Angier, Conquering Hero, Thumper. *Yellow*.—Margold, Husbandman, and Broom Girl. *Currents*.—Black Naples, Lee's Prolific Black. *Red*.—La Hâive, Red Dutch, Victoria or Houghton Castle, and White Dutch.

**THE ROSES AGAINST A WOODEN RAILING (F. J.).**—Maréchal Niel would not do well, for the fence is too low. Such a position is little better than the open; but the harder kinds of Teas would do fairly.

**PRUNING CLEMATIS JACKMANI (Idem).**—There is no necessity to cut back 6 inches of the base annually; but having the shoots evenly disposed, cut back only to firm well-ripened wood, deferring the pruning until spring. Liliums of the harder kinds would succeed in a north border if the wall which causes the northern exposure be not over 10 feet high, and the Liliums not planted nearer to it than 4 feet.

**SOPHORA TETRAPTERA MICROPHYLLA (Amateur in Trouble).**—We do not know the species. It is probably *Edwardia grandiflora* or *E. microphylla*, both of which require to have a wall with a south or south-west aspect. Send us a spray of the shrub, and we may be able to identify it.

**LABURNUM INFESTED WITH INSECTS (G. R.).**—From your description of the insects we think they are a species of *Acarus* or red spider common to Laburnum and Elm trees in a dry soil and hot dry season. We should now dress the trunk and principal branches with paraffin oil, applying it with a brush, and reaching well the cracks and crevices of the bark, but keeping it from running down to the roots. Give also a mulching over the roots 2 or 3 inches thick of fresh soil or well-rotted manure, lightly stirring the surface soil. Early in July, or upon the appearance of the pest, syringe the trees thoroughly with a solution of soft soap, 3 ozs. to the gallon of water, and repeat in early August. If you were also to water freely in any dry weather in June or July onward it would tend to invigorate the trees and probably overcome the pest.

**STOVE FOR HEATING SMALL GREENHOUSE (A Reader).**—Only those stoves consuming oil, and only heating the air as it passes through the stove without heating the outer surfaces of the stove to a red heat, may with safety to plants be used without a flue or smoke pipe. The "vapourising stoves" are

of this kind, and one of those consuming a gallon of paraffin in six days, or 144 hours, at a cost of 3s., or 1d. per every four hours, will heat a space of 30 square feet. One kind is as good as another, and we cannot recommend dealers.

**TREES AND SHRUBS FOR SEASHORE PLANTING (Brian Boru).**—Evergreen Oak, *Pinus insignis*, *P. laevis*, with *Sycamore* and *Turkey Oak*, are what we advise of trees; and of shrubs *Tamarisk*, *Alaternus*, *Brooms*, double *Gorse*, *Euonymus*, *Escallonia macrantha*, *Hollies*, *Elders*, *Sea Buckthorn*, and *Guelder Rose* are most likely to succeed, but we do not consider they or only some of them would endure in a position where they will "get well splashed with sea spray." We should be obliged for information of sea-spray-enduring trees or shrubs.

**FRAGRANCES AND NEGOTIARIES FOR WEST WALL (East Worcestershire).**—Early Louise and Dr. Hogg Peaches, Balgovan and Lord Napier Nectarines.

**ROYAL HORTICULTURAL SOCIETY (D. de Foye).**—According to its eighth rule you would be eligible to compete for the Society's prizes with "specimens bona fide your property and in your possession one month previous to the show." There is not a word about the exhibitor being the grower of the specimens.

**STEPHANOTIS TURNING YELLOW (J. K. Durham).**—If you have not been applying any solution for killing insects in too strong doses we should imagine the change in the leaves is due to a low night temperature. With the increase of heat in the spring, and especially bottom heat, after repotting your plant will resume its usual vigour. The flowers of your *Lapageria* would in all probability have increased in size with the strength of the plant and generous culture. Try *L. rosea splendens*, and do not "part with it" hastily.

**NAMES OF FRUITS (R. O. Penge).**—Gansel's Bergamot. (*Mrs. Carlsale*).—Crataegus coccinea, Scarlet-fruited Thorn. (*Old Subscriber, Newlay*).—The Common Almond. (*Connaught Subscriber*).—2, Boston Russet, Hubbard's Pearmain; 4, Gager Pippin. Pear, No. 1, Suffolk Thorn; 2, Bergamotte Cadette. (*G. M. Swanton*).—You have not numbered or otherwise marked the fruit, and it is impossible to distinguish them. (*E. S.*).—1, Warner's King; 2, Peers's Pippin. (*Thomas Parker*).—1, General Todleben; 2, Adèle de St. Denis; 3, Calchasse; 4, Harrietie Bouvier; 5, Beurré d'Amanlis; 6, Dunmore; 7, Fondante de Charnon. (*Mrs. E. Pigeon*).—3, Beauty of Kent; 5, Blenheim Pippin; 10, Braddick's Nonpareil; 11, Sweeny Nonpareil; 23, Longville's Kernel; 25, Hambleton Deux Ans. (*M. E. P.*).—1, Lumboe's Seedling; 2, Golden Reineette; 3, Margil; 5, Delaware; 6, Boston Russet. Peers; 4, Beurré Rance; 5, and 6, Beurré de Capiaumont; 7, not known. (*G. Barfoot*).—1, Beurré Sir; 2, Beurré Drouleux; 3, Beurré Luizet; 4, not known; 5, Aston Town; 6, Cooke's Pippin. (*Rue in Urbe*).—1, Stamford Pippin; 3, Ganges; 4, Hoary Morning; 5, Golden Noble; 7, Winter Greening; 8, Duck's Bill. We cannot name more than six fruits. (*John T. Wood*).—Maiden's Blush. (*Smith & Simons*).—The Pear "Fair Maggie" is quite a local variety grown in Clydesdale, and has no other name. The specimens were quite rotten at the core. (*H. L.*).—1, Summer Portugal; 2, Winter Nells. (*Bertie*).—1, Belle de Noël; 2, Marie Louise; 3, Beurré Dial; 4, Louise Bonna of Jersey; 5, Soldat Espérance; 6, London Pippin. (*George Walpole*).—1, Nouveau Poiteau; 2, Bergamotte d'Espérance; 3, Emile d'Hayat; 4, Wormsley Pippin. (*F. Pm*).—1, Beurré Hardy; 2, Wormsley Orange. *Apples*: 1, Pismantoun Russet; 2, Winter Greening; 3, Royal Russet; 4, Golden Winter Pearmain. (*T. Clements*).—1, Due de Nemours; 2, Duchesse d'Angoulême; 3, Nouveau Poiteau; 4, Marie Louise d'Ucole; 5, Beurre Dial. (*W. F. L.*).—4, Calchasse Grosse; 5, Deux Sœurs; 6, Napoleon; 7, Passe Colmar; 8, Vicar of Winkfield; 9, not known.

**NAMES OF PLANTS (E. C. B.).**—The tree is the Hornbeam, *Carpinus betulus*. (*E. L. Ipswich*).—We cannot name florists' flowers.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### ALEXANDRA PALACE POULTRY SHOW.

THIS after many delays is among the Shows accomplished, and we were delighted with the Exhibition, the arrangements, and the management. Doubtless we could pick two or three holes, but the managers will have noticed them equally with ourselves, and for the first Show the success must be considered very great. We hope that when the reckoning time arrives there will be a goodly balance. It certainly was a fine spectacle to see the 2500 pens in one building, in one tier, with one glancing; but somehow it seemed poor after the Crystal Palace. Why we cannot say, but it continually gave us the idea of being something like a corn-exchange exhibition, and we think it must be because the central hall itself was so much smaller and more enclosed. We do not suppose this Exhibition will ever equal the Sydenham Show, but with due observance to one or two things we believe this may be made into an exhibition second only to it; but we should recommend in future its being held a week earlier in October, for the better accommodation of exhibitors wishing to send to older-established meetings.

**DORKINGS** had nine classes, cockerels and pullets of each variety being shown separately, with the exception of the Cuckoos, which were shown in pairs. Why this exception was made we do not know, as they are perhaps more difficult to match than any other variety. The Coloured class had twenty-nine entries. Here the Bath winner had an easy victory. If he keeps right he will shortly repay Mr. Hamilton for his large outlay; but we fancy we see already indications of swollen feet, otherwise he was in splendid condition. Second and third were nice birds. Pen 21 (fifth) a promising Rose-comb, very young, and we think when more advanced will supersede many that were placed above him on this occasion. Mr. Lingwood was highly commended with a bird of many good points, but he wanted the carriage of a Dorking. Pen 18 very crooked in the toe; in other respects we thought him equal to the winner. Pullets, twenty-nine entries. First (Mr. Parlett) by far the

largest bird in the class, with many other good points. The fourth (Walker) was a good bird, but not in such good condition as the second and third. Silver-Grey Dorkings were a small class but good (ten entries). First a nice bird, good in colour and legs; not quite so large as the second, but in other points superior, only entered at £4 4s. Second (Burnell) a fine bird, a little gouty in the toe; third Burnell, which we think at a future period will change positions with his brother. Pullets also a small class. First and second Burnell; the first, which also secured the cup, we think one of the best pullets we ever saw. The second was good in colour but smaller. Onokoos only six entries. The difficulty to which we have previously referred doubtless caused the class to be so small. The first was a good pen, well matched, of fair size, and beautiful in colour; second a nice pen, but we thought the cock small. Pen 77 (Burnell) we considered the second best cock, but he was mated with a small hen in many respects his inferior. White cockerels seven entries. First a nice bird, with rather a primrose tinge; second much better in colour; third pretty but small. Pullets.—Mrs. Haynes first and second with fair birds. The Selling class, £5 5s., first if straight in tail deserved his position; second good in some points but small; fourth rather queer in toe, which doubtless causes his appearance in this class. Pen 107 unnoticed we thought equal to some of the winners. The Dorking awards were very satisfactory.

**COCHINS.**—Buff Cochins were the best in numbers, but the quality was not up to the standard, as we had hoped. We liked Mrs. Aston Tindal's third-prize cock as well as the winner, for it was better in shape and symmetry, the first having an ugly comb. Mr. Frank's pen, 126, was very clear in colour but small. In pullets the winner was bad in colour and coarse in head. The second-prize pullet was a beauty, good in colour and shape. Messrs. Darby and Gee showed good birds but a little small; and pen 143, Mr. Frank's, deserved a better card, we thought. There were a great many very moderate birds in the class, but deficient in size. There were only six Partridge cockerels, but the quality was good. Pullets were a nice lot; the winner sound in back colour but too grizzled in thighs. Mr. Bennett's pen, 184, was a very good bird, and so was Mr. Derry's in 185. White cockerels were fair, but the winners only worthy of note. The second we liked the best. The third was poor in colour, otherwise very promising. 192 was the bird first at Aston Park; he is good in colour, but wants size. White pullets were a fine lot. The first-prize bird looked antique in head and legs, and so did Mr. Fowler's pen 211. The second-prize bird was bad in colour, while the third was a beauty. Mr. Woodgate's very highly commended bird, 207, did not show herself to advantage. In Blacks the winner was a long way ahead. He is perfect in all points—a little too large in tail, yet he is a beauty. Pullets were good, but we could not like the winner. She was red in neck-hackles and a dead black—not a particle of bloom about her. As we said last week, our choice was Mr. Frank's pen 219. We were disappointed with the Selling classes in Cochins. The winning Partridges in each class were much the best. We noticed some hens here in pens where pullets should only be; but then they were as thick as blackberries throughout the Show, and we really wonder so many escaped detection. We had an idea that birds would be found in these £5 5s. sale classes that would be run up at the auction; but there was hardly a bird in the classes worth more than the 10s shillings placed upon them in the catalogue.

**DARK BRAHMAS.**—Cockerels forty-one entries. Mr. Lingwood first, second, and third. We congratulate him, he is a thorough fancier, and all admit that he quite deserves his success. Of the third bird we quite agree with the selection of the Judge. The first was a fine chicken nicely marked, with pretty comb, good leg-feathering, and every promise to fill-out and make a grand bird. Second was a fine bird, but not equal to the first. The third had some superior points to either, but he always carried his wings on his shoulders, covering his hackles; this gave him a stunted appearance. As he gets more developed they may drop into their place. Fourth (Bennett), a good style of bird, but already very yellow; fifth a good colour but deficient in marking; sixth a fair bird, that if entered will have a good chance in the Mottled class at the Crystal Palace; seventh and eighth neat birds. 269 (Hon. Miss Pennant) as 260 (Hon. Mrs. Baillie Hamilton), are birds that will improve and probably be found in future prize lists. Dark Brahma pullets, seventy entries. Although the class was a large one and contained birds with some nice points, we could not find a really grand bird. The first (Percival), was beautifully marked, neat, and well-proportioned, but small and deficient in leg-feathering. The second and third (same owner), were much inferior to the first. The fourth was a good bird, well marked, and much larger and better-shaped than either of the first three. We should have decidedly placed her second. We liked many birds better than the second and third. Fifth (Miss Pennant) was a well-marked bird; sixth, seventh, and eighth were all well marked, and had points very superior. Pens 807 and 808 (Messrs. Newnham and Manby) are young and will improve. Pen 814 (Pritchard), nicely

marked. Pen 816 (same owner), unnoticed, we thought one of the best pens in the class. Mr. Evans and Mr. Peake also showed some good specimens. Cockerels (not to exceed £5 5s.), eighteen entries. First a pretty bird sound in colour and well feathered; second and third fair; fourth a short chicken. The fifth might compete well for the Baroness Burdett Coutts' prize at the Crystal Palace. Pair of pullets (not to exceed £5). 406 first, well matched, nicely pencilled, but deficient in leg-feathering; second not so good a pair with similar deficiency; third better feathered but not equal in markings.

**LIGHT BRAHMA.**—Cockerels thirty-one entries. The cup bird (Tedd) is fine, not in shape, but good in colour and comb, and well feathered. The second (Dean) neat and pretty in comb, but not so large as the first; third (Horsfall) a large bird; fourth (Dean) well shaped; six and seventh we preferred to fifth, they were better shaped and superior in style. 438 (Holmes) we thought deserved notice. Pullets, sixty-nine entries. Here we fancy we see a general improvement. 450 (Mrs. Bain), first neat in shape, large, and well feathered, but a trifle creamy. Second (Horsfall) not so large, but well shaped and very sound in colour. Third, fourth, and fifth nice birds, and deserved their position; sixth nice shaped but wanting in leg-feathering; seventh a nice bird; eighth (Potter) very good in colour. We should have liked to see her more forward in the prize list. Mr. Rice showed three good pens (highly commended), well grown and in splendid condition. Mr. Saville's two highly commended were pretty but small; Mr. Turner's and Mr. Holmes' birds well deserved notice. In the £5 5s. classes with the exception of the first-prize cockerel (Beldon), a stylish bird, we failed to find any pen worthy of special notice.

**SPANISH** disappointed us very much. The numbers, considering the season, were satisfactory, but the quality very inferior. The winners were forward birds, and the first had plenty of face, but the quality generally was coarse, and the combs ugly; second not so large in face; third, a neater bird, but we shall not expect to see either of them in the prize list of a large show again. Pens 581 and 582 (Chilcott) we should have placed before them; they have neat combs, not so much lob, but the quality was much superior. 565 deserved notice. Pullets sixteen entries, with three or four exceptions poor. The first (Goddard) was a nice bird, with a good open lob, but a twist in the neck, which is very prevalent with heavy-faced cocks, but not so often found in pullets, and which we consider very objectionable for breeding purposes. It was entered at £5, but bought in, we understand, at the auction at double that amount. The second and third were birds of good quality, but not so large in lob as the first. 600 (Chilcott) had the largest face, but she was not yet in trim for exhibition, and we think she will get very coarse.

**FRENCH.**—All the French classes were well filled, and appear to be rapidly making their way in public favour. Houdan cockerels numbered twenty-six entries. Mr. Dring was again in the front with a fine bird, nice in colour, but a little deficient in crest; second and third neat birds. 611, 620, 627, and 609, unnoticed, we marked as especially worthy attention. Pullets numbered thirty-three entries, and a lot of good birds were to be found here. First (Wood), was a fine bird in all points and deserved her position; second not so large; third (Copplestone), a grand bird. We think we should have placed her second. Mr. Dring and Mr. Hibbert showed some birds, highly commended. Nineteen birds in this class were distinguished by the Judge. The Crêves were good classes, but not so numerous as the Houdans. First (Knight) was a well-proportioned neat bird, with good crest and comb, and must have run the pullets very close for the cup; second (same owner), a fine bird, but not so neat as first; third (Malden), a good bird. The pullets numbered twenty-three entries, and some magnificent specimens were to be found. We walked down this class before the prize cards were placed on their pen, and on reaching pen 691 we thought we had found the winner, but in a second we caught sight of her next-door neighbour, pen 692. This quite dispelled the illusion. We thought her one of the best Crêve pullets we had ever seen; perfect in shape, of good size, crest, and comb. The cockerel was a good one, but we think she quite deserved the cup. The second was a large bird; the third very neat, and closely, we think, pressed by one or two highly commended pens.

**HAMBURGERS.**—This variety came well to the front, and all the good yards sent fine specimens. The winner in Golden-spangled cocks deserved his cup. He is a fine bird, and a model in points. After him we had a great liking for pen 705, and 709 (Blakeman) was a beautiful chicken. One or two of the best-marked birds wanted more style. Pullets were beautiful; the winners well chosen. Perhaps the first-prize bird had a little faded appearance, but her spangles made up for it. Silver-spangled cockerels were a pretty lot. Mr. Long's pen, 729, was good in wings and breast, but his legs were too white. 732 (Hallam) a good chicken with nice carriage. In pullets we thought Mr. Patrik's or the Duke of Sutherland's birds richer in colour, but not so perfect in markings as the winners. Golden-pencilled cockerels were a large and good class. The winner was a smart bird and well



shown; second also very good; for third place we preferred 751 (Beldon) or 759 (Tiekner). Pullets were a nice class, and must have been difficult to judge, so many were nearly equal in points. We liked the markings of Mr. Judson's bird (772) as well as any, but she was too pale in body colour. We liked the winner much, but thought the second and third might have changed places. Silver-pencils, as usual, made the smallest classes, but the quality made up for the deficient quantity. The Trantham cockerels were very smart birds, having remarkably good sickles. The pullets also were a nice lot, the pencillings of all the winners being extremely even and good. Blacks were truly beautiful. The winning Black cockerel was one of the best, if not the best Hamburg cockerel in the Show; his colour, shape, and head were beautiful. The other cockerels noticed were all good. Of those out of the prize list perhaps 799 (Preston) was our favourite. The pullets were a good lot, the winner very good all round; second also a nice pullet with true Hamburg shape. 811 (Hoyle), a nice bird with a good lobe. We think we saw some old hens here, and advise that they be kept at home in future, and not substituted for their daughters.

The GAME made extremely good classes. There were a large number undubbed, and of those many very good chickens. The winning Black Red cockerel was a beauty, good in all points, and carrying himself well; his tail is admirable, and head very fine. The other winners were good and deserved their places. We liked Mr. Bamford's pen, 823, very much, and thought it deserved a higher card. Black Red pullets were very grand. The winner who carried off the cup was a model in points and of very beautiful colour; second went to a peculiarly compact bird, and third was again after the style of the winner. Mr. Matthew's pen, 846, was a good pullet, capital in head and carriage. Brown Reds also made a splendid collection of birds. The winners in cockerels wanted more time, but of great promise. The fourth-prize bird was not dubbed. The Judge only awarded the prizes in this class, giving no other cards; but we fancied Mr. Palmer's or Mr. Cook's cockerels deserved a notice. The Brown Red pullets were a smart lot, and the winners well selected. We think we liked the third-prize pullet quite as well as the second, as there was something about the colour of the latter we did not quite fancy. Mr. Martin's pullet, 880, was a good bird, and with a nice head. In cockerels of any other variety first and second went to Duckwings, and the third to Piles. We much admired the second bird, and thought he was superior to the winner, being better in head, shape, and tail. The third Pile was a good bird, and came in a good third. 898 (Dutton) a very good Duckwing, as was 900 (Martin). In the Variety Game pullets we thought the winner beautiful; we could not detect a fault. There were one or two more good Duckwings in the class, and a nice Pile which won second, but everything was left behind by the first-prize bird.

MALAYS did not make large classes; and good chickens seem to be scarce, for the entries were poor, as they were at Oxford. The winning cockerel was a large bird with a regular Malay head and of fine shape, but he wants more time. He won the Malay cup. Second was a fine bird, but also wants more time; he promises to be a large bird, and is of good colour. The third bird was not enough of a Malay in shape, and we liked better Mr. Ridley's, or Mr. Hinton's quite as well. The winning pullets were all good, the second and first especially being very equal. We liked their colour, and their feathering looked hard and glossy. We noticed two or three cream-coloured birds in these classes. We say cream colour, because they were neither White nor Piles. We have seen about a good pen or two of Whites, and thought a class for them may draw some pairs out. They seem to be plentiful in Jersey.

POLANDS.—All three varieties were well represented. It was as nice a show of Poland chickens as we have seen for a long time. The winners in Golds were good; the third pullet a beauty, and if she was not too round-backed to be in the prize list at all we think she should have been first. The pair which received that honour were splendid chickens. In Silvers the second cockerel was a beauty; his wings quite perfect, and it must have been close between him and the first-prize pair for the latter honour. All Mr. Adkins's pullets had such good crests, being large and good in colour. Blacks were very fine, and here came the Poland cup. We can imagine great rejoicings at Little Ness on hearing that the cup had been wrested from the Golden and Silver for our old friends the Blacks. We doubt if the pullet would be much better, but we thought the second-prize cockerel was better than the cup bird, but the latter will in time be equal to him perhaps, as he is now full of pen feathers. Mr. Norwood's cockerels were very grand in crest and shape, and we thought 978 should have crept into the prize list; but the pullet with him, though enormous in crest, was not nicely shaped in her headgear, as she wanted her chignon putting on straight. Mr. Unsworth also showed a nice pair of chickens in this class; in fact, the whole collection was superior.

SILKIES were much admired. The winners were very white and perfect in point. The first-prize pair was sold at the

auction for £10 10s. It is surprising to find what large prices this variety fetches. Mr. Darby's pen was good, but there was a tendency to hooks, while Mr. Cresswell's, though splendid in fluff and shape, also seemed too heavily feathered in hooks and legs.

LEGHORNS made two very pretty classes, and the Brown variety had justice done to them, for the winning pullet was charming in head and shape. The Whites have much improved in ear, and here showed-up well, Mr. Fowler's cockerel being very smart and neat in carriage. Mr. Ward's, the third, were fine chickens and well shown.

VARIETY CLASS.—This was as pretty a medley as we have seen. The first-prize pair were Cuckoo Cochins; nice birds, but quite chickens as yet. Second went to White Poles. It is long since we saw them, and we hope they may be the fore-runners of other obsolete Polish breeds again coming. Third went to Black Minorcas, a nice pair; and not to Sultans, as we stated last week. And fourth to a pretty pair of Sultans, good in head and legs. 1012 (Croote) a fair pair of young White Minorcas.

BANTAMS.—Black Red Game cockerels, twenty-three pens. First (Ardagh), a nice racy-looking bird of good Game style; second a neat bird, in some points superior to first; third and fourth good birds. Mr. Maple, Mr. Shumach, Mr. Hall, and Dr. Adams, and one or two others showed birds that we think deserved some notice from the Judge. Pullets were a large class—forty-one entries, and a difficult task the Judge must have had. First was a graceful nice-looking pullet; second smaller, very neat and of good style; third, fourth, and fifth were good. Brown Red cockerels, eight entries, and pullets ten. Both classes were good, especially the latter. We strongly object to judges throwing commendations broadcast, as they soon lose their value, but we think Mr. Smith might be a little more bountiful. Any other variety cockerel.—Brownlie first and second with two pretty birds much similar in style to the bird Mr. Brownlie was so frequently successful with last year; third, a beautiful-coloured Duckwing undubbed. The pullet class numbered twenty-two entries. First and third, good Piles; second, a Duckwing, good in colour, but very large and rather thick. Black Bantams, fourteen entries. First (Shackleton), a nice pair, very neat in comb. Sebrights.—First, Silvers, the best coloured pen we have seen Mr. Leno show for a long period. Second (same owner), Golden; and third, Silver (Robertson). Any other variety was deficient in novelty and quality, the prizes going to White Rose-combs and White-booted. The first were fair birds.

DUCKS.—These were good classes. The first-prize pair, Aylesburys, exceedingly good in bill and shape; the second were, too, a fine pair, closely pressed, however, we thought by Mr. Fowler's fourth-prize pen. We liked 1362 (Walker), or 1359 (Sotham), as well as the third-prize pen. Rouens made a grand class, and Mr. Evans won another cup deservedly; second also very good and well shown; the third a beautiful pair of Ducks, the drake especially in fine feather. The class was capital throughout. Blacks were another superior class; pen after pen was a beauty, but the Duck was not good enough for him. Mr. Kellaway's pens were rather smaller than Mr. Sainsbury's, but we thought the latter gentleman's birds showed more condition and bloom. The ornamental class was lovely. The whole class could have been highly commended. It must have been a toss-up almost whether Carolinas, Mandarins, or Whistlers won the prizes.

GEES had only one class. We think two classes would pay at these shows, for there are so many ornamental breeds about which their owners would be glad to exhibit at these great meetings. The first prize were a grand pair of Embdens, as fine a pair as we ever remember to have seen shown by Mr. Fowler, and that is saying a good deal; second were very fine and heavy Toulouse. Mr. Nicholls sent a fine pen, and so did Mr. Fitz-Herbert.

TURKEYS had two classes, and the quality was really wonderful throughout. Mr. Walker came well to the front, winning with very fine birds. Mr. Gunnell, however, came very near him, and also exhibited some really fine specimens. We were much pleased with these classes, and think single birds in Turkeys will make a good speculation for other shows.

SELLING CLASSES were all very large. We may say we were mostly struck by Mr. Clark's second-prize Dorking cockerel, the first-prize pair of Light Brahmas of Mr. Petter's, and a fair pair of White Cochins of Mr. Carr's. The Duck Selling class was good, and the winners would do well in many an ordinary show. Mr. Tegetmeier's extra "Apterygine" drake was most peculiar, not having a sign of a wing on either side of his body.

#### PIGIONS.

TUMBLERS.—The Almonds were very good. The winner in cocks was a very tiny bird of pretty colour, but we almost preferred the second, he being better in head points. In hens the winner also deservedly took the cup, she was a beauty all round. 1875 birds were good, but we liked Mr. Reginald Bryce's birds better than the second-prize bird. Balbs or Beards were very



good, a very lovely Blue Bald winning the cup. A Blue Beard was second, and another nice Red Bald third. It was a splendid class, and difficult to judge we should think. In the rest of the Tumblers a splendid Black Mottled of Mr. Fulton's and a Yellow Agate of Mr. Yardley's call for especial remark.

BABES made a fine collection in quality, though the classes were not large. Mr. Fulton was well to the front with fine specimens; his Red cock was a beauty and was well first. The 1875 classes were fine. Mr. Firth showed a good Yellow, and Mr. P. H. Jones sent a Red which was but little inferior to it.

JACOBS in quality were wonderful, and we are sure it would be a class where the Judge would not pretend to please, for a more even lot it is impossible almost to see. Mr. Fulton's Black was a perfect gem, and the third White was a good bird. A good Red in nice bloom won the cup, closely pressed, however, by Mr. Fulton's second-prize bird.

FANTAILS had one class, in which all the birds were really good, and nearly every bird White. The winners were well chosen and very good in tails. We admired Mr. Serjeantson's v.h.c. bird extremely; and pen 2147 (Loversidge) was a capital White.

OWLS, OWLS, AND TURBITS.—In the former a good Black won first and another good one third, second going to a fair Yellow. Owls were very beautiful, and many of the specimens most minute in size and very elegant in head and shape. All the colours were represented; perhaps of them the Silvers were the best. Turbits were very charming. We saw pen after pen of really good birds. The cup Blue was a lovely bird and in fine condition. The first Yellow in the other class was good, and in fact all the noticed birds had much quality; and some of the unnoticed birds too, for why Mr. O. E. Crosswell's Black was left out in the cold we cannot imagine. He was to our mind as good a Black as there was in the Show.

OTHER CLASSES.—Trumpeters were small and select, the winners all being fine Blacks. Magpies were very good, the Blacks especially good, though the winning Yellow and Red in the other class were fine birds. Archangels were better than usual, and there was more colour than we generally find. Runts were a fair lot, with nothing much worthy of note. Antwerps made a very large party, and very good many of them were. The first Silver Dun Short-faced cock was a nice bird and well in first. The classes were good and the winners well chosen. In the Homing class a strong and useful pair of Blues were first, Blue Chequers taking second and third places. The Variety class was a pretty collection of fourteen pens; Frillbacks won first, Whole-coloured Ioe second, and Red Turbites third.

The Pigeon Sale classes were large, and there were some good birds cheap. In the special flying class for Homing birds Mr. Tegetmeier brought a splendid collection, and deservedly did well with them. The whole class was good, and more prizes could well have been given.

We hear Mr. Billett had the birds speedily packed at the close of the Show. Everyone we have spoken to on the subject tells us they had their birds back in good condition. We understand in the judging Mr. Hewitt took Dorkings, Cochins, French, and Waterfowl; Mr. Teebay, the Brahmas and Spanish; Mr. Smith, Game and Game Bantams; and Mr. Dixon the remainder, some of the Selling classes going to each of the Judges. In Pigeons Mr. Ridpath took the Fans and Jacobins; Mr. Charlton the Dragons, Owls, Short-faced Tumblers, and ditto Antwerps; and the Pouters with Mr. Esquilant, who also judged the other classes. The birds while at the Show were fed by Messrs. Spratt & Co.

#### WHICH BREED OF POULTRY EATS MOST?

	Cost.	Value of Eggs.	Value of Meat.	Total value.	Profit.
Brahmas ..	\$9.22	\$12.10	\$14.00	\$26.10	\$16.88
Cochins ..	10.15	11.82	14.60	26.42	16.27
Dorking ..	7.72	10.48	11.85	22.33	14.61
Houdans ..	5.35	15.26	9.15	24.41	19.06
Leghorn ..	7.03	16.10	7.30	23.40	16.37

Showing Houdans first, Brahmas second, Dorking last, while Cochins and Leghorns are nearly equal and vary little from Brahmas. The birds all coming so near would tend to confirm an opinion I have heard expressed, that all the pure breeds are equal enough in profit to allow one to consult fancy only in a choice of varieties, even with limited room.—(*American Pet Stock Bulletin*.)

#### BIRMINGHAM POULTRY SHOW.

THE poultry and Pigeon department promises to be unusually attractive, no fewer than sixty-five silver cups, varying in value from £20 down to £3, being offered; and the successful competitors will have the option of taking cash in every instance. The principal changes made in the schedule relate to the Pigeon classes, the entries of which in all cases will be for single birds instead of for pairs as formerly; whilst, as an experiment, persons are allowed to exhibit Pigeons on payment of an en-

trance fee of 5s. per pen, without becoming subscribers of £1 per annum. This will be a great boon to small fanciers, and should lead to a large increase in the number of entries.

We are requested to state that all letters and communications connected with the Show should be addressed to Mr. J. B. Lythall, Bingley Hall.—(*Midland Counties Herald*.)

#### EDENBRIDGE SHOW OF POULTRY, &c.

A more miserable day than last Wednesday week it is impossible to imagine. From the time we left the Alexandra Palace in the morning till we left Edenbridge at night the rain never ceased; it came down in one incessant downpour, and drowned everything. Mud was ankle deep everywhere. Baby rivulets ran along the roadsides, and made courses for themselves over the pathways. To get from the entrance gate to the poultry tent stepping stones had to be used to avoid the perfect sea of mud; and when once inside the emptiness of the building was positively painful. There were not half a dozen people in the place, and they looked at one another as if they were ashamed of being seen out in such weather. We can only hope the next day was a better one, or we fear the balance of the Society must be but small. We were really very sorry, for the schedule was a good one, the arrangements admirable, and the quality of the birds certainly above the average. Messrs. Hewitt and Teebay awarded the poultry prizes, and we thought in nearly every case the best birds won. Mr. Billett adjudicated on the Pigeons and Rabbits with satisfaction. It was a pity the Alexandra Palace Show clashed with it, as doubtless the entries were thus considerably lessened.

Coloured Dorkings came first on the list. The old birds were fair. Mr. Darby's pen was empty. Chickens were very good, the cup cockerel a great beauty and in fine condition. All the other noticed birds were good; in fact, it was a good class of Coloured chickens. Silver-Grays were not nearly so good, and we were disappointed with them. Here Mrs. Lee's pen was empty. Whites were much better, the winning chickens being really good, especially the pullet, the cockerel requiring more time to develop, but of great promise. Brahmas were a grand lot. The first-prize pair of old birds also took the £10 10s. champion cup for best pen in the Show. The second and third were grand pens; the second hen as good as the cup bird, but her mate wanted more time. Chickens were splendid, the winning pair beautiful, and second also a good pair; in fact, all the noticed pens were good. Old Lights were fair, the prize birds only deserving mention. The first chickens were capital, the cockerel very good all round, but his pullet a shade too pale in hackles. The second were also a nice pair of chickens. Cochins made small but good classes. The old Buff birds were rather out of feather. We liked the second-prize hen best of the old hens, but her companion was rapidly losing his hackles. The first were a good pen and in better feather. Buff chickens were capital, the winners especially good, as the pullet was good in colour and well feathered. In Blacks there was not anything worthy of notice except the two first-prize pairs and the cock in the third-prize pen. The winning cockerel was a smart bird and stood up well. Whites were very good, the old birds especially so. The first-prize cock is a good one, and the hen worthy of him; second and third also good, the cocks being very good in colour but wanting more time. Chickens were all very heavily feathered, and mostly raw-looking, but promising to make up well.

Hamburgs were a good lot, and we thought the birds very carefully judged. A very smart pair of Pencilled chickens won the cup, closely pressed, however, we should say, by one or two of the Spangled pens. The Spangled hens were particularly nice, and the Pencilled chickens made a class far above the southern average. Game were a smart lot. A fine pen of Piles took the cup, closely pressed we should say by Mr. Cock's Brown Reds. The first Black Red cockerel was a smart bird; the third-prize pen of Brown Red chickens were not half a bad pair, but the cockerel carried his tail too high, still they were cheap at 50s., the catalogue price. Spanish were only a moderate lot, but the chickens made the best muter, the winning pairs being fair specimens. Polish were a great improvement on last year. Good Silvers and White-crested Blacks won in old birds. In chickens the second-prize pair were a smart pair of the latter colour, well shown. French were very good. We are told that these classes never have half justice done to them at the hands of reporters; we deny the charge in toto, and say they have their dues as much as any other breeds. The old Houdans were five pens in number, the first-prize pair very large birds and good in points; but for second place we should have chosen the third-prize pen. Houdan chickens were good, but here the first-prize pair were deficient in claws, and we should have chosen out two or three better pens, though in carriage and symmetry the winning pen was good. We noticed here a great many bad combs upon otherwise perfect specimens. In old Orèves the winners were good. The hen in the first-prize pen very large and good; second and third also good, the latter hen superior to the second,

we thought. In chickens the first-prize pair were very good and capitally shown; second and third also good pairs; pullets again bring better than the cockerels. The Variety class was an afterthought, for it is numbered 84, and did not appear in the first schedules issued. Very smart Black Hamburgs won first and second, and good Brown Leghorns third. Game Bantams were good, and the winners well selected, the first-prize Pile chickens being really first-rate. In the other Bantam classes the Blacks were the best, though there was a nice pen of Laced among them, and Mr. Boissier's White-booted were good.

Ducks were splendid, Aylesburys and Rouens both being well represented. The Variety Duck class was an extremely pretty one. We noticed a very fine pen of Muscovies of Capt. Talbot, as good as we have seen for a long time, but what can they do against the ornamental breeds? Geese and Turkeys were good, the first-prize Black Norfolks of Lady Camden being very large, and the same pair we believe which won first at Tunbridge Wells a week or two back.

The Pigeons were beautiful, and must have given the Judge much trouble. The cup for the best pen went to a good Red Pouter of Mr. Yardley's. The first-prize Black Carrier was grand in head and wattle, and well first. Antwerps were a fine lot, making twenty-six pens. The winner was a Blue, very good in colour and strong in wing. Tumblers were beautiful, Mr. Baker's being a little gem. A pretty White won in Fans, second going to a charming Blue. The Variety class was a fine collection, a good White Jacobin first, second a lovely White Owl, third a fine Trumpeter. 459 (Vander Meersech) a capital Yellow Turbit; but the whole class was lovely, and every pen might well have been highly commended, and saved the Judge trouble when once he had picked out the winners.

Rabbits were a good collection. The cup went to Lops. The winner was a good Yellow, measuring 23½ by 4½ inches. Angoras and Himalayas made very good classes. In the Variety class a fine Belgian Hare won the first prize. The quality of the whole Show was good.

**DORKINGS.**—Coloured.—1, R. Cheesman, Westwell, Ashford. 2, J. Ivery and Sons, Dorking. 3, F. May, Reigate Hill. *Chickens*.—1 and Cup, E. Bice, Sandwich. 2, J. Taylor, Dorking. 3, P. Roffey, Betchworth. *he*, J. Taylor; H. A. Rign, Sevenoaks (3).

**DORKINGS.**—Silver-Gray.—1 and 2, Withheld. 3, L. Wren, Lowestoft. *Chickens*.—1, F. Cheesman. 2, E. W. Southwood, Fakenham. 3, A. Glover, East Grinstead.

**DORKINGS.**—White.—1, J. Ivery & Son. 2, Miss E. Williams, Heallys Barrow. 3, Withheld. *Chickens*.—1, A. Darby, Little Ness, Shrewsbury. 2, A. Glover. 3, Miss M. Williams.

**BRAMA.**—Fawn.—Dark.—1, H. Lingwood, Oresting, Needham Market. 2 and 3, T. F. Andell, Cowley Mount, St. Helen's. *he*, L. O. E. Norris, Trumpington, Cambridge. *Chickens*.—1, H. Lingwood. 2, E. P. Percival, Northenden. 3, E. Haywood, Uckfield. *he*, Rev. J. P. Wright, Reigate (3); L. O. E. Norris; D. Holmes. c, N. Edgill, Frant.

**BRAMA.**—Fawn.—Light.—1, E. P. Percival. 2, J. Long, Ravenscroft, Barnet. 3, F. Haines, Edenbridge. *Chickens*.—1, H. Stephens, Tunbridge Wells. 2, E. B. Bolester. 3, Capt. W. S. Saye, Wey. *he*, G. Dowker, Stourmouth; Capt. W. Savile; P. Baines, Reigate; Rev. W. Pease, Wrotham.

**COCHIN-CHINAS.**—Buff or Cinnamon.—1, Mrs. A. De H. Christy, Edenbridge. 2, A. Darby. 3, E. P. Percival. *Chickens*.—1, A. Darby. 2, W. G. Waters. 3, G. Dowker. *he*, E. Bice; A. H. Hunt, Rickmansworth; H. Feast, Swansea; Mrs. A. De H. Christy. c, H. J. Gannell, Milton; E. Winwood, The Grove, Worcester.

**COCHIN-CHINAS.**—Black.—1, A. Darby. 2, G. W. Hibbert, Godley, Manchester. 3, A. A. Vander Meersech, Tooting. *Chickens*.—1, A. Darby. 2, Miss E. Mansel, Sevenoaks.

**COCHIN-CHINAS.**—White.—1 and Cup, R. P. Percival. 2, 3, and *he*, Capt. G. F. Talbot, Edenbridge. *Chickens*.—1, E. A. Bolester. 2, A. F. Faulkner, Thrapstone. 3, Capt. G. F. Talbot.

**HAMBOURG.**—Gold or Silver-spangled.—1, Robertshaw & Dean, Halifax. 2, H. Pickles, Ebury, Leeds. 3, J. Long. *Chickens*.—1, J. Carr, Swansea. 2, H. Pickles. 3, T. E. Jones, Wolverhampton. *he*, Robertshaw & Dean; H. East.

**HAMBOURG.**—Gold or Silver-pencilled.—1, Robertshaw & Dean. 2, J. Long. 3, H. Pickles. *Chickens*.—1, G. Dowker. 2, O. W. Gibbs, Sutton Bridge. 3, O. Thompson, Uckfield. *he*, Robertshaw & Dean; A. F. Faulkner; W. W. Tielmer, Ipswich; J. Carr.

**GAME.**—Black-breasted Red.—1, E. Goodwin, Maidstone. 2 and 3, Withheld. *Chickens*.—1, F. Warde, Maidstone. 2, E. S. Godsell, Stroud.

**GAME.**—Brown-breasted Red.—1, J. C. King, St. John's, Worcester. 2, V. Sandford, Brough-on, Upper Norwood. 3, F. Warde. *Chickens*.—1, J. Cock. 2, F. Warde. 3, R. Osborn, Guildford. *he*, H. E. Martin, Fakenham.

**GAME.**—Any other variety.—1, G. H. Fitz-Herbert, Sevenoaks. 2, E. Winwood. 3, Withheld. *Chickens*.—1, G. H. Fitz-Herbert. 2, E. Bice. 3, E. Winwood.

**SPANISH.**—1, J. Francis, Hildenboro. 2, F. May. 3, Withheld. *Chickens*.—1 and 2, J. Francis. 3, A. Darby. c, H. Feast.

**POLISH.**—1, H. Pickles. 2, J. Long. 3, A. Darby. *he*, A. & W. H. Silvester, Sheffield. c, G. J. Lanny, Lewes. *Chickens*.—1, G. J. Lanny. 2, T. Norwood, Salisbury. 3, H. Feast.

**HOUDANS.**—1, W. O. Quibell, Newark. 2, J. W. Moyle, Bechenham. 3, W. Dring, Faversham. *Chickens*.—1, Rev. W. Pearce. 2, Miss Woodham, Hove. 3, M. Sandford, Martin, Dover. *he*, Miss E. Mansel; Miss Woodham; W. O. Quibell; B. W. Thomas, Sketty, Swansea; W. Dring; R. J. Foster, Kingswood.

**ORPINGTONS.**—1, W. R. Gullack, jun., Littleport. 2, Miss A. Sharpe, Tunbridge Wells. 3, W. Dring. *he*, H. Feast. *Chickens*.—1, Rev. J. G. B. Knight, Birtwith Vicarage, Ripley. 2, Miss A. Sharpe. 3, H. Stephens.

**ANY OTHER VARIETY.**—1, H. Pickles. 2, J. Long. 3, A. Kitchen, Westerham. *he*, L. G. Morrell, Riverhead. *he*, H. J. Gannell.

**BANTAMS.**—Game.—1, G. Evans, Worcester. 2, E. W. Southwood. 3, W. S. Marsh, Deal. *he*, E. H. Stephens. c, A. Langridge, Cambridge; R. J. Gannell; Mrs. A. De H. Christy; A. Glover, East Grinstead; T. Marsh, Tunbridge Wells. *he*, Mrs. A. De H. Christy (4); E. Mansel; Capt. G. F. Talbot; T. Marsh. c, Rev. J. P. Wright;

H. J. Gannell; R. Cheesman; R. Shepherd, Tunbridge; Mrs. A. De H. Christy (3); T. Goodwin (3).

**DUCK.**—Aylesbury.—1 and 2, N. Edgill. 3, W. Jacob, Shepherdwell, Dover. *he*, S. R. Buller, Aylesbury. c, Capt. G. F. Talbot. *he*, F. Cheesman. 2, F. Warde. 3, J. C. Lawler, Tunbridge Wells. *he*, M. Sandford. *Any other variety*.—1 and 2, A. & W. H. Silvester. 3, L. G. Morrell. *he*, L. G. Morrell; Capt. G. F. Talbot; A. Young, Barrow Green, Oxford. c, W. R. Pratt, Oxford.

**GESE.**—1, G. H. Fitz-Herbert. 2 and *he*, Marchioness Camden. 3, F. Haines. *Turkeys*.—1, Marchioness Camden. 2 and 3, F. Warde.

#### PIGEONS.

**CARRIERS.**—Cock or Hen.—1, H. M. Maynard, Holmewood. 2, J. Baker. 3, H. Yardley, Market Hall, Birmingham. *he*, T. K. Cucksey, Reigate; J. James, Bath. *he*, J. James; T. K. Cucksey; J. Chandler. c, S. Livermore; J. Chandler.

**ANTWERPS.**—Homing.—Cock or Hen.—1, F. Bartlett, Southampton. 2, G. Bentley. 3, J. Francis. *he*, W. S. Marsh; W. G. Flanagan, Boding. *he*, A. Christy (4); W. R. Pratt. c, M. Sandford; A. Christy; W. G. Flanagan.

**POUTERS.**—Cock or Hen.—1, H. Yardley. 2 and 3, J. Baker. *he*, W. G. Flanagan; G. Holloway, jun., Stroud.

**TUMBLERS.**—Cock or Hen.—1 and 2, J. Baker. 3, G. Holloway, jun. *he*, W. R. Pratt; A. & W. H. Silvester (3).

**FANTAILS.**—Cock or Hen.—1 and 2, J. Baker. 3, H. M. Maynard. *he*, H. M. Maynard; L. G. Morrell; W. G. Flanagan; L. G. Morrell; A. A. Vander Meersech.

**ANY OTHER VARIETY.**—1, A. A. Vander Meersech. 2 and 3, J. Baker. *he*, H. M. Maynard; A. & W. H. Silvester (3); J. James; A. A. Vander Meersech (3); J. T. Herbert, Cleveland Street, London. *he*, A. A. Vander Meersech (3); E. Durrant, Tunbridge Wells; E. Goodwin; J. T. Herbert (3); H. Yardley.

#### RABBITS.

**LOP-EARED.**—Buck or Doe.—1 and 2, C. King, St. John's Wood, London. 3, J. Barker, Louth. *he*, R. Shepherd, St. John's Wood, London. c, C. King.

**HIMALAYAN.**—Buck or Doe.—1, J. Barker. 2 and 3, G. W. Greenhill, Ashford. *he*, R. A. Bolester; J. E. Pilgrim, Hineley.

**SILVER-GRAY.**—Buck or Doe.—1 and 2, J. Quirk, Seymour Place, London. 3, C. King. c, R. A. Bolester.

**ANGORA.**—Buck or Doe.—1 and 2, W. J. Martin, Wimbledon. 3, T. & E. J. Fell, Blackburn. *he*, R. A. Bolester. c, G. Chandler, Edeburgh.

**JUDGES.**—Poultry: Mr. Edward Hewitt, Sparkbrook, near Birmingham; Mr. Richard Teesbay, Fullwood, near Preston. *Of Pigeons and Rabbits*: Mr. George Billett, Southampton.

### MIDDLESBROUGH BIRD SHOW.

THE fifteenth annual Exhibition of Canaries, Mules, British Birds, &c. (open to all England), was held in the Odd Fellows' Hall, Middlesbrough, on Friday and Saturday, October 22nd and 23rd. Belgian birds were scarce at this show, but there were many fine specimens of the Norwich, Lizard, and Yorkshire Canaries exhibited, the latter breed making up nearly one-fourth of the entire Show. Mules and British birds were very good. In Class 38 there were a Nightingale and White Blackbird shown. The influx of visitors was not large, rain falling on the Saturday. 371 birds were shown, somewhat more than at Darlington, but still the quality of birds generally was not better.

**BELGIAN.**—Clear or Marked Yellow.—1 and 2, J. Horn. 3, J. Moffatt. **NORWICH.**—Clear Jonque.—1 and *he*, J. Athersuch. 2, G. & J. Mackley. 3, Brown & Gayton. *he* and c, J. Adams. *Clear Buff*.—1, G. & J. Mackley. 2 and 3, J. Athersuch. *he*, Brown & Gayton. *he* and c, J. Adams.

**NORWICH.**—Evenly marked Jonque.—1 and 2, G. & J. Mackley. 3, T. Clemenson. *Evenly marked Buff*.—1, J. Adams. 2, G. & J. Mackley. 3, J. Stevens.

**NORWICH.**—Ticked or Unevenly-marked Jonque.—1, J. & J. Mackley. 2 and 3, W. & C. Burniston. *he*, J. Athersuch. *Ticked or Unevenly-marked Buff*.—1 and 2, G. & J. Mackley. 3 and *he*, J. Athersuch. *he*, J. Adams.

**NORWICH.**—Crested Yellow.—1, G. Cox. 2, W. J. Hampton. 3, J. Torr. *he*, T. Clemenson. *he*, F. Woodward. c, G. & J. Mackley. *Crested Buff*.—1 and 2, G. & J. Mackley. 3, S. Stratford. *he*, R. Hawman; J. Athersuch. *he*, J. Adams. F. Woodward. c, W. J. Hampton.

**COPPY CREST.**—1, R. Hawman. 2, J. & H. Garbutt. 3, J. Baxter. *he*, J. & J. Wilkinsons. *Evenly marked Buff*.—1 and 2, J. Thackrey. *he*, S. Bunting. *he*, S. Bunting. *he*, J. Athersuch. *Silver-spangled*.—1 and 2, R. Ritchie. 3, S. Bunting. *he*, S. Bunting, Clemenson & Ellerton. R. Ritchie. *he*, W. & C. Burniston. *Gold or Silver-spangled, Broken Cap*.—1 and 2, S. Bunting. 3 and *he*, R. Ritchie. *he*, Clemenson & Ellerton. R. Ritchie. T. Clemenson. c, J. Adams.

**CINNAMON.**—Jonque.—1 and *he*, J. Athersuch. 2 and 3, J. Adams. *he*, M. Burton. *Buff*.—1, 2, and 3, J. Adams. *Variegated Yellow or Buff*.—1, L. Bell. 2, W. & C. Burniston. 3, Brown & Gayton. *he*, L. Bell; G. & J. Mackley; M. Burton. *he*, J. Wilkinsons.

**YORKSHIRE.**—Clear Yellow.—1 and 2, J. Thackrey. 3, J. Wilkinsons. *he*, Johnson & Harston (3). *he*, O. Johnson, W. Lickley. *Clear Buff*.—1, 2, and 3, J. Thackrey. *he*, Johnson & Harston, G. Turner (3), G. & J. Mackley. *he*, M. Corner.

**YORKSHIRE.**—Evenly marked Yellow.—1, 2, and 3, J. Thackrey. *he*, L. Bell. *he*, J. Wilkinsons. *Evenly marked Buff*.—1 and 2, J. Thackrey. 3, R. Pearson. *he*, J. Wilkinsons, L. Bell. *he*, R. Pearson. c, J. Wilkinsons.

**YORKSHIRE.**—Ticked or Unevenly-marked Yellow.—1, R. Pearson. 2, Johnson & Harston. 3, J. Thackrey. *he*, J. & H. Garbutt, W. & C. Burniston. *he*, J. & H. Garbutt, J. Wilkinsons. c, J. & H. Garbutt. *Ticked or Unevenly-marked Buff*.—1, J. Thackrey. 2, Lancaster & Mellor. 3, Fawcett & Anderson.

**CANARY.**—Clear Green.—1 and 2, Armstrong & Redhead. 3, R. Pearson. *he*, R. Pearson. *Evenly marked Goldfinch and Canary*.—1 and 2, J. Stevens. 3, R. Hawman. *he*, J. Horn. *he*, S. Bunting (3). *Dark Goldfinch and Canary*.—1 and 2, Brown & Gayton. 3, J. Stevens. *he*, J. Bexson.

**LINNET MULE, NEAREST CANARY.**—1, J. Stevens. 2, Lancaster & Mellor. 3, J. Baxter.

**MULE.**—Dark Linnet and Canary.—1, J. Stevens. 2 and 3, Lancaster & Mellor. *he*, G. Cox; T. Tegginswood. *he*, J. Baxter.

**MULE.**—Any other class.—1, J. Baxter. 2, W. Carrick (Greenfinch Canary). 3, W. Carrick (Goldfinch Mule). *he*, S. Bunting (3). *he*, J. Stevens. c, R. Hawman.

**GOLDFINCH MOUTDED.**—1, S. Bunting. 2, W. Batchelor. 3, Clemenson and Ellerton. *he*, H. Neilson.

**BROWN LINNET.**—Brown.—1 and 2, W. Carrick. 3, R. Hey. *he*, R. Pearson. 3, W. Carrick. *he*, J. Bage.

**SULLYFINCH.**—1, J. Rowland. 2, H. Neilson. 3, W. Carrick.

**ANY OTHER VARIETY OF BAVIER BIRD.**—1, J. Hutton (Nightingale). Extra 1, R. Hargreave (White Bird). 2, W. Smithson (Bird). 3, J. Green. *he*, J. Green. *he*, J. E. Barr (Mountain Finch). W. & C. Burniston. *he*, M. Burton.

**SELLING CLASS.**—1, J. Stevens. 2, J. & H. Garbutt. 3, W. & C. Burniston.

who, J. Thackrey, Brown & Gayton. *Ac*, J. Adams, J. Young, S. Stratford, Brown & Gayton, T. Tenniswood. *c*, J. Armstrong.

Mr. Thackrey won the President's Cup with thirty-one points, and Messrs. Mackley won Mr. Ouncillor Collingwood's Cup, gaining twenty-nine points.

JUDGE.—Mr. Blakston.

## OXFORD POULTRY SHOW.

THIS Show opened on Wednesday and closes this evening. The quality is very good, and most of the classes contain magnificent birds. The judging is in many cases hardly satisfactory, but we are able to state from actual knowledge that the greatest pains were taken by the Adjudicators. We give the poultry prize list, and next week will furnish a full and critical report of the whole Show. Prince Leopold's champion cup was won by Mr. Burnell with a grand pen of Silver Dorkings.

**DORKINGS.**—Coloured.—1 and 2, Viscount Turn ur. 2, E. W. Beasley. 4, F. S. Arkwright. 1 local, J. Gee. 2 local, H. Piper. *Ac*, T. O. Burne, 1, E. W. Beasley. J. Walker. Rev. H. F. Hamilton, S. Newick. J. White. *c*, O. E. Cresswell, Countess of Dartmouth, F. Caws.

**DORKINGS.**—Silver-Gray.—Cup, T. O. Burnell. 1, F. Cheesman. 2, O. E. Cresswell. 4, W. W. Rutledge. 1 local, E. Woodford. 2 local, W. Bateman. *Ac*, W. W. Rutledge. *c*, S. Salter.

**DORKINGS.**—White.—1, Mrs. M. A. Hayne. 2, O. E. Cresswell. 3, Miss E. Williams. *Ac*, Countess of Dartmouth. 2, R. Gamon. 2, Countess of Dartmouth. 3, A. Chulwin. 1 local, J. T. K. Castoll. *c*, H. H. Young.

**SPANISH.**—E. Jackson. 2, T. Moore. F. W. Notlage. 1 local, H. Johns. 2 local, E. Woodford. *Ac*, H. Wilkinson, J. Walker. S. L. Edwards, W. Blower. *c*, Mrs. Allsopp, E. Winwood.

**COCHINS.**—Cinnamon or Buff.—1, Mrs. A. Tindal. 2, Mrs. Allsopp. 3, A. Darby. 1 local, J. Gee. 2 local, W. R. Pratt. *Ac*, Simpson & Dodd, Mrs. A. Tindal. *Ac*, W. R. Pratt. *c*, M. Allsopp.

**COCHINS.**—Partridge.—1, T. Tadmam. 2, Mrs. A. Tindal. 3, F. Bennett. *Ac*, R. P. Percival, Mrs. A. Tindal, G. Lamb.

**COCHINS.**—Black.—1, G. Forley. 2 and 3, A. Darby.

**COCHINS.**—Any other variety.—1, Mrs. A. Tindal. 2, J. K. Fowler. 3, R. A. Boissier. 1 local, J. W. Craddock. *Ac*, R. A. Boissier. A. F. Faulkner.

**BRAMHMS.**—Dark.—1, R. P. Percival. 2, H. Lingwood. 3, Hon. Mrs. A. B. Hamilton. 4, Newham & Mans. 1 local, R. P. Percival. 2 local, E. Ayre. *Ac*, F. Bonner. *c*, Hon. Mrs. D. B. Grant (3), W. Birch.

**BRAMHMS.**—Light.—1, H. Chawner, jun. 2, H. Stephens. 3, Horace Lingwood. 4, E. E. Horsfall. 1 and 2 local, G. O. Smith. *Ac*, S. Lucas. *Ac*, P. Haines. Capt. W. Saville. *c*, Mrs. S. Crook, G. W. Pether.

**GAMES.**—Black-breasted Red—Cockerel.—1, P. Westcott. 2, G. Lucas. 3, S. Matthews. Local Cup and 2, R. J. Pratt. *Ac*, G. Smith. Pullet.—1, T. P. Lyon. 2, Hon. and Rev. F. Dutton. 3, G. Newgate. 1 local, R. J. Pratt. 2 local, W. R. Pratt. *Ac*, Hon. and Rev. F. Dutton. *Ac*, Hon. and Rev. F. Dutton. 3, H. Tyte. *c*, Hon. and Rev. F. Dutton.

**GAMES.**—Brown-breasted and other Reds—Cockerel.—1, S. Matthews. 2, T. Dymon. 3, J. & E. Prinos. 1 and 2 local, Miss Osborne. *Ac*, R. Ashley, W. Perrin. G. F. Ward. *c*, R. Ashley, W. Grant. Pullet.—1, E. Garnet. 2, J. Peet. 3, S. Matthews. 1 local, Miss Osborn. 2 local, S. Field. *Ac*, E. Garnet. W. O. Phillips. *c*, J. Nelson, H. Lotan, J. Jeken, G. F. Ward.

**GAMES.**—Any other variety—Cockerel.—1, S. Matthews. 2, H. & W. Mason. 3, E. H. M. R. 4, W. O. Phillips. 1 local, H. Lotan. *Ac*, T. Hall. H. Beldon. J. F. Walton. E. Bell. Pullet.—1, U. W. J. Thomas. 2, S. Matthews. 3, J. Goodwin. 1 local, W. R. Pratt. *Ac*, J. Mason. *Ac*, J. Forsyth, J. F. Walton, H. & W. Mason. G. F. Ward.

**HAMBURGERS.**—Gold-pencilled.—1, Duke of Sutherland. 2, O. Judson. 3, W. Tiekner. 1 local, J. T. K. Castoll. 2 local, G. Newman. *Ac*, O. E. Cresswell, J. Walker. W. Clayton, J. Dowken, Duke of Sutherland. *c*, H. Pickles.

**HAMBURGERS.**—Silver-pencilled.—1, H. Pickles. 2, Beldon. 3, E. W. Bracewell. *Ac*, J. Shephard, T. Hanson, Duke of Sutherland.

**HAMBURGERS.**—Gold-spangled.—1, Duke of Sutherland. 2, H. Beldon. 3, H. Pickles. 1 local, J. Calcutt. 2 local, F. J. Knott. *Ac*, J. Long.

**HAMBURGERS.**—Silver-spangled.—1, H. Pickles. 2, H. Beldon. 3, Ashton and Booth. 1 local, J. Stoddart. 2 local, Miss Owen. *Ac*, T. Dean, S. W. Hallam. J. Carr, J. Long. *c*, J. Fielding, G. O. Holt.

**HAMBURGERS.**—Black.—1, J. Pickup, jun. 2, Rev. W. Serjeantson. *c*, C. D. Farrar. 1 local, S. Woodford. 2 local, Miss A. Binney. *Ac*, H. Hoyle, Rev. W. Serjeantson, J. Long. *c*, H. Beldon.

**POLAND.**—Black, with White Crests.—1, P. Unsworth. 2, T. Norwood. 3, A. Darby. *Ac*, T. Edwards, J. Fearnley.

**POLANDS.**—Any other variety.—1 and 2, G. O. Adkins. 3, A. W. H. Silvester. *Ac*, H. Beldon, P. Unsworth, Miss P. Galloway, G. J. Lenny.

**HOUDANS.**—Cup, W. H. Copplestone. 2, W. O. Quibell. 3 and 1 local, R. Harvey. 4, R. Wood. 2 local, R. Harvey. *Ac*, R. Dring, R. E. Kyrr. Penrose. R. Foster. Miss H. A. Woodman. W. O. Quibell. W. Dring. P. Hanson. G. Day. R. B. Wood. E. Handley. C. Morris. *c*, J. H. Baby.

**FRENCH.**—1, E. Burnell. 2, W. Dring. 3, G. de Faye. *Ac*, R. B. Wood. *Ac*, Rev. J. G. B. Knight (3), E. Burrell, W. Cutlack, jun., R. Garnett, J. S. Maggs, H. Feast.

**MALAYS.**—1, Miss A. Brooke. 2, W. B. Payne. 3, Rev. N. J. Ridley. *Ac*, J. Hinton. G. Burnell, Capt. O. Terry.

**AMERICAN FOWLS.**—Brown Leghorns.—1, R. J. Foster. 2, A. Kitchen. 3, S. L. L. Bradbury. *Ac*, A. Kitchen (4), J. Thorneley, F. S. Green.

**AMERICAN FOWLS.**—Any other variety.—1 and 2, E. Burnell. 3, A. Ward. 3, R. R. Fowler.

**SILKIES.**—1, A. Derby. 2, Mrs. J. T. Holmes. 3, E. S. S. Woodgate. *Ac*, R. S. S. Woodgate, H. Stephens. *Ac*, O. E. Cresswell, J. N. Nicholls.

**ANY OTHER VARIETY.**—1, A. Bond (Sultans). 2, H. J. Lonnor (Black Minorcas). 3, M. G. Palmer (Geese). 4, O. E. Cresswell (White Guinea Fowl). H. Beldon, T. A. Bond (Sultans), J. Croote (Minorcas), H. Pickles.

**GAMES.**—Black Reds.—1, E. Brownlie. 2, E. Ardagh. 3, W. Adams. *Ac*, J. Nelson, G. Maples, jun., G. Hall. *c*, E. Morgan.

**GAMES.**—Brown and other Reds.—1, S. Beighton. 2, G. Hall. 3, J. Nelson.

**GAMES.**—Any other variety.—1, E. Brownlie. 2, F. Steel. 3, R. Brownlie. *Ac*, J. Nelson, G. Hall.

**BANTAMS.**—Black, Clean-legged.—1, W. H. Shackleton. 2, C. & J. Hingworth. 3, W. H. Shackleton. *Ac*, Bower & Horsfall, G. S. Prentice, R. H. Ashton. *Ac*, Pearson & Taylor, G. W. Gedney, H. Beldon, E. Cambridge. *c*, C. Reed.

**BANTAMS.**—Sebright.—1, M. Leno. 2, J. W. Lloyd. *Ac*, E. Pritchard; Rev. G. F. Hodson. *Ac*, Rev. F. Tearle, J. W. Lloyd, M. Leno. *c*, J. Walker.

**BANTAMS.**—Any other variety.—1, H. E. Smith. 2, T. Green. 3, E. Cambridge. *Ac*, R. A. Boissier, T. Cropper. *c*, C. Judson, G. Ellis, S. Crooke, T. Cooper.

**DUCKS.**—Aylesbury.—1 and 2, J. K. Fowler. 3, Mrs. A. Tindal. *Ac*, T. Kingsley. J. Walker. *Ac*, T. Kingsley. J. Hedges. *c*, J. O. Fraser, H. T. Sotham, Duchess of Marlborough, J. Rogers.

**DUCKS.**—Rouen.—1, J. Nelson. 2 and 3, J. Brookwell. *Ac*, W. H. Copplestone. *Ac*, J. Walker, J. Hey, E. Shaw, J. K. Fowler. *c*, Duchess of Marlborough.

**DUCKS.**—Black East Indian.—1, G. S. Sainsbury. 2, J. Walker. 3, J. W.

Kelleway. *Ac*, G. S. Sainsbury, E. T. Felham. *Ac*, J. W. Kelleway, Mrs. M. A. Hayne, T. Moore, W. Serjeantson.

**DUCKS.**—Calk.—1 and 2, H. J. Bailey. *Ac*, H. Beldon.

**DUCKS.**—Any other variety.—1, H. E. Smi h. 2, M. Leno. 3, J. Walker. *Ac*, H. E. Smi h, W. Boucher. *Ac*, F. F. Arkwright, H. E. Smith, O. Terry, M. Leno.

**PHEASANTS.**—1, M. Leno. 2, Mrs. W. C. Drummond. 3, W. R. Pratt. *Ac*, Mrs. Cross. *Ac*, W. R. Pratt, Mrs. W. C. Drummond.

**TURKEYS.**—1, W. Wykes. 2, Rev. N. J. Ridley. 3, H. J. Gannell. *Ac*, Miss A. Mayhew. *Ac*, J. Walker.

**GESE.**—1, R. E. Fowler. 2, J. Walker. 3, J. H. Nicholls. *Ac*, R. E. Fowler, *Ac*, Duchess of Marlborough, J. Hunt. *c*, T. Kingsley.

The Judges were Messrs. E. Hewitt, Sparkbrook, Birmingham; R. Teebay, Fulwood, Preston; P. H. Jones, Fulham; and F. Esquilant.

## THE HONEY SEASON.

THE honey season of 1875 being now over, I am in a position to state the results in this part of the country (East Lothian). The description given by some of your correspondents of the season in other counties applies equally to this. Though we had plenty of spring flowers the weather was such that the bees could not go out, and it was the beginning of May before they made any progress; then they made a good start, and increased rapidly, so that swarms were obtained on the 17th of May in some cases. Then we had cold weather, and had to feed to keep up the breeding. This requires to be done judiciously, not to give too much, but just enough to keep the queen laying eggs.

The season still being unfavourable it became evident that if we wanted honey we must not increase our stocks, but keep them strong. Having fourteen I only increased to seventeen. I only took one super of clover honey, 21 lbs. weight, from a stock which did not swarm. They were sent to the heather on the 29th of July, and brought home on the 8th of September. The hives were in good condition with plenty of bees, and we expected a good supply of honey. The heather was in good condition, but the weather was much against them. They had not more than ten good days for work, and as I had them all weighed before they were sent away and when they came back, I found the average weight of honey gathered was a little less than 21 lbs. each, the lightest being 9 lbs., and the heaviest 39 lbs. This large increase, however, I must own was owing, as I suspect, to a neighbour's hive having swarmed and gone into it a few days after it went to the heather. It was in a Stewarton with two stock boxes and a super, and I had to add another stock box to give room. My other hives were Woodburies, ten, twelve, fourteen, and twenty-two bar frames, in wood and straw, and the common straw hives with flat tops.

Though 21 lbs. is a good average, we did not obtain many well-finished supers. It seemed as if the queens had ceased breeding shortly after they went to the heather, when the honey was deposited in the breeding cells, and the supers were in many cases left empty. I had a twenty-two bar hive having two entrances, and in order to make sure of a super I filled two ten-bar Woodbury hives with the combs and bees, placed the one on the top of the other without an adapting-board, and put on a super. With the exception of the two outside bars which I kept out, which was fine clear honey, all the other combs were well filled with brood in all stages. I made sure of a well-filled super, but alas! I was disappointed. Though 22 lbs. of honey were gathered—being 84 lbs. when I sent it away, and 106 lbs. when it returned—not above 4 lbs. were in the super. I removed the upper hive, driving out all the bees into the under one, and found it weighed 56 lbs.; in fact, every comb was filled with honey, showing that breeding had ceased shortly after they reached the heather.

We put little value on run honey here; in fact, it cannot be sold at hardly any price; 8d. a-pound for the very finest is all that can be had, and it is not worth the trouble of running it for that price. So that our aim here is to have supers from 10 to 15 lbs. each at a time when 1s. 4d. to 1s. 6d. a-pound can be obtained for them.

Large hives are not generally used here; they have been often tried, but those who keep to the small straw hives are in most seasons successful in obtaining supers. A ten "bar Woodbury" is considered very large, but I must confess that we are on most occasions beat by the small skeps, 14 inches wide and 8 inches deep. A neighbour this year began with two stock hives; he has now four hives, and took good 6-lb. supers from the four, and plenty of honey to keep the stocks during winter, so that it is absurd to advise large skeps for every locality. I have no doubt that large hives are required in some places, but certainly not in all, as we have experienced for the last thirty years. We find they do as well in wood as in straw skeps. At one time I thought otherwise, but now, though I have still some straw Woodburies, I would not get any more; and a neighbour here, who keeps about one hundred hives in the season, has nearly all his made of wood, of octagon shape, 18½ inches wide and 8 deep, inside measure. Though treated all in the same way, it has happened for two years that those in the wooden boxes have swarmed first and generally done better than those in the straw. By this experience I do not mean to assert that wood is better for bees

than straw; all I maintain is, that wood is ultimately the cheapest, and that they do as well in the one as in the other. Besides, when the wood becomes black and dirty in the inside we give them a coat of white-lead paint, and the bees take to it as well as to either clean wood or straw. I paint my straw Wood-burys as they get dirty in the inside, so that we really find that the bees are not so fastidious about their domicile as we would have them to be.

My neighbour began with forty-eight stocks this spring, and increased to seventy; these he will reduce to about the same number by breaking up old skeps and destroying old queens, adding the bees of course to weak hives. His success this year has been much the same as my own, though he does not weigh them. Through an accident which prevented him following his occupation as a blacksmith he has taken to keep bees, but finds it a very precarious source of income, and no one can manage them better than he does. If the seasons were always favourable he might be more prosperous, but if money is to be made by bee keeping in other localities it certainly is not in this, and he often longs to be where those flourishing balance sheets are made up, where he would make a fortune in a few years, and being an enthusiast in bee-culture, wonders that anyone would continue in any other occupation when so much can be made by keeping bees. Seeing the great advantage of a moveable bar hive, he would use no other were it not their first expense.

I have just received and introduced two Ligurian queens which Mr. Neighbour sent me. I followed out the printed instructions sent with them. After being enclosed in the cage for two days and two nights I took out the bar and allowed some of the bees to have access to the queen, when I found they would have killed her, although there were no eggs in the hive. The second one being tried in the same way the bees took to her at once, and she was allowed to go free among her new subjects. On the third day I again allowed the bees to have access to the first queen, when they received her with joy.—ALEX. SHEARER.

**WEST GLAMORGANSHIRE AGRICULTURAL SOCIETY.**—Its Poultry Show is on the 9th of December. The prizes are good. One class is unusual—for White Game.

### OUR LETTER BOX.

**HAMBURG COCK'S COMB SHRIVELLED (F. G. H.).**—Give the bird a little ale and toast daily, and rub the comb with camphorated spirit until he has finished moulting.

**COCK-CROWING (—).**—We believe the cocks that crow least are the Dorkings, Crève-Cœur, and Houdans. Cochins, Brahmas, and Game are the noisiest; the two first from their crow, the last from its persistence in challenging. Hamburgs are also very shrill and persistent. It may, however, be borne in mind, that a cock by himself and out of hearing of any other does not crow much.

**BRAHMAS DYING ON THE PERCH (J. C.).**—There can be but two causes for the death of your birds. Either they pick up something that is poisonous, and the red combs would seem to contradict that, or they are too fat. We should incline to the latter opinion, especially as you say they were laying. In straining to get rid of the egg they become apoplectic. It is more than likely they are over-fed. In all cases you can find by handling whether they are egg-bound or not. If they are, dip a wing feather in oil, and pass it gently down the egg passage till it touches the egg, and lubricate it thoroughly. It will be laid and the bird relieved. Feed as follows—barley meal or ground oats alaked night and morning; some whole corn in the middle of the day, and nothing else. Feed only as long as the fowls will run after the food. Your May pullets should lay next month. The cock was suffering from stoppage or from an injury in the back.

**COST OF POULTRY FEEDING (May, Dublin).**—The food to be given to fowls depends on the nature of their run. If they have a grass run, and access to a stable dung-heap, they want less food than when they are either in confinement or shut out from the opportunities of finding natural food. If fowls have nothing but that which is given to them, they should have three meals per day. We believe both for health and economy ground food is better than whole corn. They should then have a meal every morning and evening of barley meal or ground oats alaked with water. This should be thrown down in small places, and given only as long as they run greedily after it. The mid-day meal may be whole corn, or house, table and kitchen scraps. Where the greatest economy is looked for there must be no waste, and every mouthful of food left on the ground is waste. The cost of keeping birds is governed by the condition in which they are when the experiment is begun. If they are in full flesh and condition their appetites will be moderate. If they have been kept on short commons they will eat voraciously at first. If you wish to keep them economically you must superintend the feeding yourself. If you do this, and neither waste nor over-feed, you should keep your birds at from 2d. to 3d. per week per head.

**PROTECTING HIVES (Carolus).**—For a temporary cover put on a piece of carpet and over that a piece of oilcloth. We will publish some drawings of coverings next week.

**BEE FEEDING (T. Meattin).**—In autumn bees should be fed rapidly—that is to say, have all they need for winter in one week. Your plan of giving them what they require every week answers well in spring, but is to be avoided now. Boll loaf sugar in its own weight of water, say a pint of water (or rather less at this season), to 1 lb. of sugar. When the syrup is about blood heat give the bees 2 or 3 lbs. of it every day till they have enough.

**FOX'S SUPREMACY (T. B.).**—It is of no use complaining now of injustice being done at the Crystal Palace Bee and Honey Show. No one can ascertain the considerations which guided the Judges.

**PARROT WITH DISSAISED NOSTRIL (Gardener).**—Ask your chemist to prepare an ointment made up with two or three grains of caustic (nitrate of silver) to about as much fresh lard as will fill a teaspoon, with which you may anoint the part affected. This will tend to allay inflammation and prevent further accumulation of cankerous matter. Give the Parrot a generous diet—some hempseed, if it will partake of it, in addition to other food. Let it have a shower bath occasionally, but after each bath gently dry the bird's feathers before a fire.

**PET SNAIGULL (T. F. Y.).**—The mites in the cage will much irritate the Gull, especially during the night time. The cage will require thorough cleansing. Dress the crevices with turpentine, and afterwards lamp oil or paraffin, and in a day or so afterwards well brush and wash the cage with scalding suds from the washing-tub.

**BREASTROOT LEAVES AND STALKS (J. L.).**—The leaves are cooked like spinach, and the leafstalks like asparagus.

### METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.				IN THE DAY.						Rain
1875.	Oct.	Barom. at sea and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
			Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 30		Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
Oct.												
We. 30		29.477	49.5	49.0	E.	50.0	51.8	48.3	53.1	48.0	0.799	
Th. 31		29.543	54.5	53.3	N.	50.8	50.3	48.3	54.8	44.0	0.260	
Fri. 31		29.551	54.0	53.5	E.	50.6	57.8	45.1	71.9	40.7	0.022	
Sat. 31		29.558	49.7	49.7	E.	50.0	50.8	44.3	54.9	38.6	0.251	
Sun. 31		29.976	50.3	47.5	N.	48.8	54.1	44.3	58.5	42.1	—	
Mo. 25		30.305	43.0	41.3	N.E.	49.8	51.5	37.8	60.0	33.3	—	
Tu. 26		30.181	48.7	41.2	S.E.	47.8	51.6	37.8	58.3	33.3	0.100	
Means		29.753	49.5	47.9		49.6	53.9	43.0	73.0	40.0	1.423	

### REMARKS.

20th.—A thoroughly wet day from early morning to midnight.  
21st.—Beautifully fine till 3 P.M., then cloudy; lightning at 3.30 and thunder at 8.45 P.M., heavy rain afterwards; but fine night.

22nd.—Hazy early, but fine by 8.30 A.M., then showery; but fine night.

23rd.—Fair, but cloudy early, and after 9 A.M. showery all day; rather less so at night.

24th.—Fine and pleasant all day, particularly bright in the middle of the day.

25th.—Fair, though rather cold in the morning; very fine and pleasant all day.

26th.—Another fine and agreeable day, but not quite so bright as the preceding one; rain in evening.

The first four days wet and uncomfortable, the last three fine. Average temperature nearly the same as the previous week, but falling during the last day.—G. J. SYMONS.

### COVENT GARDEN MARKET.—OCTOBER 27.

THE market is still heavily supplied with all classes of goods, both English and foreign, and with a slow trade prices do not improve. Some good specimens of Salway Peaches are now to be procured, and are making remunerative prices. Both-house Grapes are feeling the effect of the late wet weather, large quantities having been out during the past week, whilst some good samples are still coming from Jersey. Pears consist of Marie Louise, Calabrese Grosse, and Duchesse d'Angoulême, Glou Morcean, and Bourdieu. The first cargo of St. Michael autumn Oranges has just been sold, as also some Pines, so that a regular supply of both may now be expected. Kent Cobs and Fibberts are experiencing a decline, owing to a better supply and the reluctance of buyers to purchase till a lower figure is quoted.

### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	0	0	Malberries.....	lb.	0	0	0
Apricots.....	dozen	0	0	0	Nectarines.....	dozen	0	0	0
Cherries.....	lb.	0	0	0	Oranges.....	100	12	0	0
Chestnuts.....	bushel	0	0	0	Peaches.....	dozen	0	12	0
Courants.....	1	0	0	0	Pears, kitchen.....	dozen	0	0	0
Black.....	do.	0	0	0	dessert.....	dozen	1	0	0
Figs.....	dozen	0	0	0	Pine Apples.....	lb.	4	0	0
Filberts.....	lb.	0	5	0	Pineapples.....	1	0	0	0
Cobs.....	lb.	0	5	0	Quinces.....	dozen	1	0	0
Gooseberries.....	quart	0	0	0	Raspberries.....	lb.	0	0	0
Grapes, hothouse.....	lb.	1	0	0	Strawberries.....	lb.	0	0	0
Lemons.....	100	8	0	0	Walnuts.....	bushel	4	0	0
Melons.....	each	1	0	0	ditto.....	100	1	0	0

### VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	0	Leeks.....	bunch	0	4	0
Asparagus.....	100	0	0	0	Lettuce.....	dozen	0	6	0
French.....	bundle	0	0	0	Mushrooms.....	pottle	0	0	0
Beans, Kidney.....	1	0	0	0	Mustard & Cress.....	punnet	0	2	0
Broad.....	1	0	0	0	Onions.....	bushel	3	0	0
Beet, Red.....	dozen	1	6	0	Pickling.....	quart	0	0	0
Broccoli.....	dozen	0	2	0	Parley.....	doz. bunches	0	0	0
Brussels Sprouts.....	1	0	0	0	Peas.....	dozen	0	0	0
Cabbages.....	dozen	1	0	0	Potatoes.....	quart	0	0	0
Carrots.....	bunch	0	5	0	Kidney.....	bushel	2	0	0
Capicums.....	100	1	6	0	do.....	do.	3	0	0
Califlower.....	dozen	2	0	0	Radishes.....	doz. bunches	1	0	0
Celery.....	bundle	1	8	0	Rhubarb.....	bundle	0	0	0
Coleworts.....	doz. bunches	3	0	0	Salsify.....	bundle	0	0	0
Cucumbers.....	each	0	2	0	Scorzonera.....	bundle	1	0	0
Endive.....	dozen	1	0	0	Seakale.....	basket	0	0	0
Fennel.....	bunch	0	2	0	Shallots.....	lb.	0	0	0
Garlic.....	lb.	0	6	0	Splanch.....	bushel	3	0	0
Herbs.....	bunch	0	0	0	Tomatoes.....	dozen	2	0	0
Hyssop.....	bundle	4	0	0	Turnips.....	bunch	4	0	0
					Vegetable Marrows.....	doz.	1	0	0

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 4-10, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
4	TH		52.1	36.6	44.8	1	47	35	4	23	1	19	48	8	16	18
5	F		52.9	37.2	45.0	8	7	25	4	49	1	24	9	7	16	17
6	S	Cammarinus born, 1524.	52.4	36.9	44.7	8	7	23	4	9	2	12	10	9	16	14
7	SUN	24 SUNDAY AFTER TRINITY.	52.1	36.7	44.4	8	7	21	4	24	2	morn.		9	16	11
8	M		52.0	34.8	43.1	8	7	20	4	37	2	12	0	10	16	7
9	TU	PRINCE OF WALES BORN, 1841.	50.5	33.8	42.2	10	7	18	4	48	2	33	1	11	16	9
10	W	Royal Horticultural Society—Fruit and Chrysanthemum Show.	50.4	34.0	42.2	12	7	16	4	8	0	55	2	12	15	56

From observations taken near London during forty-three years, the average day temperature of the week is 51.8°; and its night temperature 35.6°.

## MANURE AS A SURFACE DRESSING.



R. LUCKHURST has, on page 87, opened an interesting question, and in advocating the applying manure to the surface of the ground has well sustained his position.

He has told us not only that the practice is good, but why it is good, which is the best of all modes of teaching. I do not propose to consider the theory of the proceeding, but will confine myself mainly to my practice and observation, confirmatory of what Mr. Luckhurst has so well said on the point.

In a village in the north of England a cottager lived until recently who was generally known as an "old cure"—that is a popular name adopted to point out that an individual has peculiarities too numerous to be otherwise laconically described. One of the peculiarities of this "old cure" was his mode of manuring his garden, and planting his Potatoes. His plot was half an acre in extent, and for fifty years and more half of it was occupied with Wheat and half with Potatoes, on the alternate system.

His system of planting Potatoes was to select large tubers and cut them, and to plant each set with the cut side uppermost. His mode of applying manure was to spread the whole of it on the surface after his Wheat was sown and his Potatoes were planted. Year after year he was laughed at, argued with, and advised, but nothing could move him from his plan. Much might be said, and was said, against the soundness of the system—the Potatoes would "go blind," and the manure be "wasted in the air;" but in the end no one could gainsay the fact that not any of his neighbours had better crops than he had. For half a century he did not change his mode of cropping, and applied every particle of manure on the surface after planting, and he left that land as good as he found it. Of that man and his practice were many differences of opinion, but on two points all were agreed—viz., that his crops were good, and that he was an "old cure." The manure I ought to say was rotted, and did not interfere with the work of hoeing and land-cleaning.

Another instance: A cottager, a very near relation of mine—I will not call him an "old cure," but I daresay some people might—was noted for his good garden crops. His plan was to spread the manure on the ground in the winter when in a green, long, unrotted state. By the spring its soluble constituents were washed away, and the surface was covered with littery refuse. On a suitable day this was loosened with a rake, and was set fire to on the wind side to give, as he said, the land a "swinge." Better crops of Potatoes I have never seen than were produced on that man's land. I knew it for twenty years, and to this day he is remembered by his neighbours as having been the "best gardener in the place." He attributed great importance to the "swinge" (scorch), and on this point let anyone try it who may—spread anything over the surface and burn it, and I care not what

crop is afterwards planted, that crop will be benefited by the surface-scorching.

Further: In the garden where I was apprenticed the greatest trouble the gardener had to contend with was his failing crop of Raspberries. The plantation was dug and dunged, and first one manure was tried and then another, but the crop did not satisfy. It was at length determined to procure fresh canes for a new plantation. "Not another bit o' muck should be dug into the old bed, but it might take its chance for a year or two" until the new canes were profitable. That was the verdict passed on the profitless Raspberry quarter. It did "take its chance," recovered, and for ten years yielded profitable crops of fruit. It was never dug afterwards, but manure was applied to the surface. That lesson I have turned to account. For fifteen years I have been responsible for the fruit supply of gentlemen's gardens, and have never dug amongst the Raspas, and never failed to gather abundant crops. Manure has always been applied on the surface.

Ten years ago I took the charge of a garden. It was a light soil in a dry district. The Black Currants appeared to be, as the owner said, "on their last legs." They were at the least twenty years old and produced trashy fruit. They had been regularly dug amongst and manured. The digging was omitted, but not the manuring, and every alternate row was chopped nearly to the ground with the billhook. These stumps pushed fresh shoots, and in two years the rest were cut down. The same trees are now bearing heavily as fine fruit as need be grown. They have never failed, and have never had the spade or fork amongst them, but have been top-dressed with soil and manure. I firmly believe that under similar treatment Black Currants will continue to bear satisfactorily for fifty years; those trees are thirty years old and are better than ever. The same practice I have always followed—that is, never digging, but applying manure on the surface—with Gooseberries and Strawberries, and with the same good results. I found by actual trial that it was the best plan for a dry district and a light soil, and therefore, like the "old cure," I have adhered to it with unvarying success.

But what about vegetables? Well, to every crop, without exception, I have found the application of the manure to the surface during the growing season the most profitable mode of applying it—in fact, without following out the plan I never could have given the satisfaction which I have given in providing an unbroken supply of garden produce over a series of years. Broccoli! why, to dig in manure for this crop I hold to be absolute waste. What does it do? It fosters a sappy stem and flabby leaves for the frost to penetrate. I have always planted this crop thinly in hard unmanured ground, and have trusted to the rains of autumn to give the plants all the support they need before winter. When frost arrives then have I covered the surface thoroughly, and the benefit of that manure is not spent in growing succulent plants for the frost to kill, but in perfecting sweet fine heads for table use. The time will come when all grower:



of Broccoli will work on that principle as being the most rational, certain, and profitable.

Mr. Luckhurst has also mentioned the benefit of surface-manuring when applied to the Vine border. I can also speak unequivocally in favour of the practice. Other growers can, and some do, grow good crops of Grapes without it, but I cannot. I can wish it, and I regard it as my most effective aid in the production of heavy crops of fruit. Further than that, I have had the privilege of seeing the works of better growers than myself, and I have noticed that the best of them are decidedly in favour of rich surface-dressings.

My plain remarks have run to a greater length than I had intended, but possibly the incidents of practice which I have mentioned may stimulate others to adopt the same practice—that is, if they have failed with any crops before, and they fancy their failure is attributable to excessive digging and undue exposure of the surface of the soil, and especially in dry weather.

In penning these lines I wish to say that I am no enthusiast. If, without the practice here narrated the results are satisfactory I advise no change; it is only when an old plan fails that I suggest the trial of a new one.—RADICAL CONSERVATIVE.

## THE ROSE SEASON OF 1875.

### A RETROSPECT.

TAKING it altogether I do not remember a more disappointing season than that which we have just passed through. The bright prospects of the early part of the year were all dimmed by the dry May and June, and the wet weather at the end of June, and the terrible July! How (I speak of Kent) lovely our meadows looked in March, with a prospect of a fine hay crop! But then came weeks and weeks of dry parching wind, and hay is now double the price it was last year. Our Wheat and other cereals were most promising, but the ungenial weather ruined our prospects, and Wheat was rarely ever worse in quality or quantity than about us. Our orchards were a mass of beauty, Cherry trees were especially laden with fruit; but the wet of July caused them to split and crack so that they were not worth gathering, and rotted in quantities on the trees; and lastly, the great crop of our county (Hops) was at one time a very picture of beauty, but hundreds of acres have never been picked, so completely have they gone off; and if there be exceptions to the general failure it is in Nuts, Apples, and the "Turnits" and green crops generally.

Turning to our gardens, there has been much the same story to tell. It was not until the latter part of August that bedding-out was really effective; our small fruits suffered terribly with the wet of the latter end of June and July, and the same causes militated against the Roses. A fair promise was nipped in the bud, and Rose-growers had to mourn over hundreds of blooms which never opened, but were gummed together by the rain, and hence what at one time we were inclined to look upon as the finest Rose season we should have had for some years came at last to be, as in other things, a comparative failure. I say comparative—doubtless we all had fine Roses, but we had also a bloom which lasted but a short time, and which was much diminished in quantity by the rain.

I had the opportunity as judge of visiting most of the great Rose shows, beginning at Exeter on the 18th of June. I was at the Alexandra Park, Crystal Palace, Wisbeach, Spalding, Tonbridge Wells, and Chipping Norton, and the autumn shows of the Metropolitan Floral Society and Stamford. I could not (and, indeed, should not have cared to) go to Birmingham, I was not at Nottingham or Hereford; but with these exceptions I have, it will be seen, been present at most of the Rose tournaments of the season, and should like to record a few things which have struck me as worthy of note.

In the first place I would gladly record the great and increasing interest taken in the Rose. It is not merely that one finds the giants of the ring entering into the contest with keenness and ardour, but that the number of those who are "putting on the gloves" is yearly increasing. Some are coming to the front at what we may call our great national exhibitions, while at the provincial shows amateurs exhibit in a manner which some years ago would never have been dreamt of, and in a way which would make them formidable opponents in a more extended field; while the observations made by bystanders clearly show that it is with no idle meaningless curiosity they scan the stands and take their notes, but with an intelligent interest and desire to increase their already promising collections, and this is, of itself, sufficient to show

the value of our exhibitions. They afford a meeting-place for those interested in the queen of flowers, and hundreds of orders go to growers which but for these exhibitions would never have been sent, and it is for this reason I deplore that the Royal Horticultural Society has abandoned its Rose show for 1876.

In the next place I think the past season has been singularly barren in the production of any new Roses of great merit. A few have come to the front, but only a few; and when one surveys the long list of French Roses with their magnificent promises and their small performance, one cannot but be struck with the great contrast.

*Mademoiselle Marie Cointet* as exhibited at the Crystal Palace by Mr. Bennett of Salisbury was indeed a grand Rose; the brilliancy of colour—a deep carmine pink, its size, and apparent constancy were qualities which, if it be a good grower, promises fairly to make it a favourite Rose. Like others it has been missed in the great rank of foreign Roses; but now it will doubtless be found in all collections and in most of the stands of next year's shows.

*Madame Lacharme*.—I was rated soundly for praising this Rose, yet who that saw the stands of it exhibited at the Alexandra Park and Crystal Palace could refuse to assign to it a high place? Let it be borne in mind, too, that this was an exceptionally bad season for light Roses. As its habit of growth is so very dense it is better to cut out some of the shoots, leaving three or four only on each plant, and by this finer and better blooms will be produced.

*Capitaine Christy*, heralded as a fine Rose, has not been up to the mark, and I have seen but very few good blooms of it; but, again, the season has had something to say to it, for Mons. Norman and such-like Roses have not been at all good. The habit of the plant is good.

There are many other French Roses, such as *Antoine Mouton*, *Comtesse de Serey*, *Ingenieur Madèle*, &c., of which much has been said, but they have not been brought to the exhibition-table in such form as to enable one to say much about them.

I now come to English-raised Roses, of which several have been exhibited in fine condition.

*Duchess of Edinburgh* (Bennett).—This has shared the same fate as most flowers of the same colour—pale pink with darker centre, and I have hardly seen one bloom in condition. I had one plant of it in my own garden, but its blooms were unable to open themselves on account of the wet.

*Duchess of Edinburgh* (Veitch).—Not, I believe, an English-raised Rose, though sent out by an English firm. It was said to be a Tea, but I fail to see in it anything more than a China; and it is, as far as I can judge, simply an improved *Cramoisie Supérieure*.

*Sir Gernet Wolsley* (Cranston).—I have seen some very grand blooms of this product of the King's Acre Nurseries. It is large, of good form and colour; and as the habit is vigorous it will, I have no doubt, be a favourite.

*The Shah* (Paul & Son).—A clear bright red, beautiful in form, not very large, and suitable for the front row in an exhibition stand.

*Wilson Saunders* (Paul & Son).—A very vivid crimson rose. Petals very large, shape good, habit vigorous, and altogether a Rose that will well maintain the reputation of this old-established Rose firm.

*Rev. J. B. M. Camm* (Turner).—Quite a novelty. Wonderful shell-like form and beautifully imbricated; remarkable, too, as being one of the most delicately scented Roses that we have—quite the perfume of the old Oabbage.

*Letty Coles* (Keynes).—This is a very beautiful Tea Rose, a pink *Mademoiselle Willermor*, retaining the form and substance of that fine flower, but of a beautiful bright pink colour.

The third matter that struck me was the great superiority of the seedling Briar as a stock for late exhibition Roses. Whatever may be the opinion entertained as to its merits for Roses in the height of the season, I have no hesitation in saying that nowhere have I seen such Roses as it produces for autumnal blooms. One fact is worth a hundred arguments; and when I was urging on one of our largest exhibitors to exhibit Roses at the Metropolitan Floral Society's show on August 24th, his reply was, "Mine are all over, and Prince is sure to be then in great force." Those who intend to compete at autumnal shows would do well to have a supply of Roses budded on this stock.

My paper has run to my usual length, and I must therefore



close, and may perhaps have some further remarks to make by-and-by.—D., Deal.

### CLAPP'S FAVOURITE PEAR.

FIVE years ago I had sent me a tree with this name, and not knowing it, and the "Fruit Manual" in its last and larger form (replete as it is with very accurate descriptions of the best and most useful varieties of fruit trees, and a very valuable list of synonyms) not including it, I was content to bear with it until this year, when it fruited for the first time. It was sent to me as an "American Pear, early, and of high excellence." The tree is of free vigorous growth with magnificent large healthy foliage, very similar to that fine early autumn Pear *Bourré d'Amanlis*. The fruit is large, oblong-pyramidal, very even in its outline, 4 to 5 inches in length, and 2½ to 3 inches wide; eye open with spreading segments, set in a shallow basin; stalk long, rather stout and curving, inserted in a shallow cavity or with slight depression; skin deep yellowish green, highly reddish-brown on the side next the sun, and when ripe is very beautiful. The flesh is whitish, tender, melting, and juicy, with a sweet, rich, slightly perfumed flavour. Ripe September 10th, 1875, Jargonelle being ripe September 3rd.

Mr. Rivers states in his catalogue of fruits that it was ripe August 20th, 1875, or a difference of twenty days; but then there is the difference in climate to be taken into account. High (over 500 feet above sea level), and exposed on the north-east coast of the North Riding of York, considerable difference in time of ripening between here and Herts may be expected; in fact, Pears are generally late in ripening here. For instance, *Sammer Doyenné* (*Doyenné d'Été*) ripened this year on August 14th, and last year on September 9th; *Jargonelle* this year ripe September 3rd, last year September 25th; *Bourré Giffard* this year September 16th, last year September 23rd; *Bourré d'Amanlis* this year September 24th, last year October 8th; *Williams' Bon Chrétien* this year September 25th, last year October 12th; and *Lonise Bonne* of Jersey and *Comte de Lamy* ripened on October 11th, which last, though a small Pear or only medium-sized, is very delicious, and does well as a pyramid on the Quince. So delicious, indeed, is *Comte de Lamy* that it is a fitting prelude to *Seckle*, which succeeds it, and is the richest of all, and a prodigious bearer as a pyramid.

The tree of Clapp's Favourite is planted at an angle of a wall and upright, part of the branches being trained to a south-west, and the others to a west wall or aspect, and the tree is on the Pear stock. It surpasses *Jargonelle* in appearance, and it, or any other Pear up to *Williams' Bon Chrétien*, in quality, combined with size; it will become a favourite generally with Pear-growers, as it no doubt is, or was, with the one whose name it takes. Of autumn and early winter Pears we have a goodly number; additions are wanted in the early summer and late winter kinds, and among the first of those desiderata must be placed Clapp's Favourite.

Can you tell me what *Jules d'Airolles* is considered to be? Is it synonymous with *Liren d'Airolles*? [They are synonymous.] It is very handsome in appearance, not unlike *Napoleon*, but larger and longer, and very much brighter on the side next the sun.—G. ASHBY.

### LILY OF THE VALLEY FORCING.

No class of plant can be more enjoyable during the dull winter months than the *Lily of the Valley*, but it must then be forced. Single crowns are greatly to be preferred to imported clumps; for when clumps are used you have very few flowers, and these are very inferior to those produced from single crowns. When single crowns are used you have the bloom equally all over the pot, and the spikes of bloom are very fine, and they will well repay the little extra cost, for I have known them to realise at Christmas from 10s. to 15s. per pot in Covent Garden Market. Seventeen crowns are the general number used in 48-sized pots. They should be placed at equal distances apart. Out the roots off to within 2 inches of the crown, and pot them very firmly in any kind of soil, for they will not make any root. Care must be taken to keep the crown above the soil, as it will make quite a week's difference in forcing, for if placed under the soil the plants come irregularly. Place them in a cold frame, and cover them over with cocoa-nut fibre to swell the crowns. Care must be taken not to over-water them, for that causes them to rot off. Bring

them on gradually into heat, and keep the fibre over them till the crowns burst, and then plunge them in bottom heat in a close frame of about 90°. The *Lily of the Valley* will stand any amount of bottom heat. You can bring the plants into bloom in a fortnight, but you will only have flowers and very little foliage, and they look quite as bad without foliage as without bloom. But where bloom only is required it is best to force them quickly, as the bloom is then produced much earlier.—A. Y.

### GRAPES AT THE EDINBURGH SHOW.

I CANNOT go the length of supporting a public testimonial to Mr. Dickson, as "A. K." proposes, though I should be glad to hear his ability and success were recognised by the Royal Horticultural Society—or the "Caledonian," for instance (!); but if he fails to obtain redress from the Edinburgh Society, or rather to get an investigation instituted, I shall be pleased, as an English gardener who is wholly disinterested in the matter and entirely unacquainted with either party, to subscribe my mite to any decided legal action he may be disposed to take in the matter. If, as stated in the letters furnished by Mr. Dickson, the two footstalks of Mr. Curror's cluster were between 2 and 3 inches apart, it can be no hair-splitting problem as to whether it was two bunches or not; they might as well have been cut from different limbs. As to what is a bunch of Grapes, I have my doubts about a fasciated footstalk constituting a legitimate bunch, as I have doubts of fasciated Cucumber—i.e., two adhering together, constituting one fruit; but when the bunches come to be the length of one's finger apart there are no subtleties in the question.—A GRAPV-GROWER.

MR. DICKSON by implication brings a charge of either incapacity or dishonesty against the Judges, and in his letter of the 23rd of September he complains of the conduct of the managers of the Show because he could not commit them to a like imprudence. They knew that they had selected men as judges who had European reputations for both skill and integrity, and to have asked such men to go over their work again in Mr. Dickson's presence that he might see whether their decisions were reliable or not, would have been offering them an insult which every man of them would have repelled with indignation; and because a sense of honour on the part of the managers protected them from such a disgraceful step Mr. Dickson writes, "This seems very strange procedure, and I leave the public to judge from the facts."

Mr. Dickson and those who sympathise with him seem to be under the impression that during the time the bunches were being weighed others than those who had a right to be present were there while he was excluded. This was not so. Dr. Hogg, Mr. Moore of Chelsea, and myself were present as the trustees of the Veitch Memorial Fund, awarding the prizes and medals from that source to the object for which they were offered, and happened to be in the neighbourhood of the two large bunches when they were about to be weighed; Mr. Curror's bunch being close to where I stood, I and my son, who was acting as clerk to the Judges, stepped forward to remove it from the board. I found the bunch attached wholly by one stem to the lateral on which it grew, and not by two, as some writers, who, from the position in which it lay, must have had an imperfect opportunity of observing, else they never could have made the statement that it was attached by two stems. I examined this single stem carefully to satisfy myself that it was hard and fibry enough to admit of a piece of cord my son had in his hand being put round it to form a loop by which to hang it on the hooks of the balance that was to weigh it. This done I lifted it clear off the board with the T piece of wood in my hand and the single stem between my fingers, and held it till it was suspended at the end of the balance, while 26 lbs. made up of various weights were at the other. It turned the scale with that weight against it, and 1 oz. was added. This was its exact weight. It had only lost 3 oss. of the weight rendered by Mr. Curror during the twenty-four hours it had been cut, the greater part of which time it had been in a hot dry room. When this was noted there was a slight cheer, led I think by Mr. Rust of Kridge Castle, near Tunbridge, by way of marking his sense of the honesty displayed by its exhibitor, of whose very existence he had till that moment no knowledge. I removed the bunch from the beam, and replaced it on the board. While this was being done Mr. Dall of Stoke Rochford, one of the Judges, with some one assisting him, removed Mr.

Dickson's bunch, and placed it in like manner, when it was found that with the ounce weight removed it would not balance the 26 lbs.; 1 lb. was then removed, and according to my recollection 10 ozs. added, and not 15 ozs. as some have written. When it was thus discovered that Mr. Dickson was vanquished there was no cheering or manifestation of feeling of any sort, and Mr. Dickson may rest assured that there was no animus against him in any form whatever, but a hope that further effort would lead him to regain the position he once held of being the grower of the heaviest bunch on record.

It is true Mr. Dickson's bunch is said by him to have weighed 26 lbs. 8 ozs. when weighed at home, and while it was unfortunate for him that it lost so much weight on the way, the Judges had nothing to do with that; their duty was to decide according to the evidence placed before them. When these large bunches were placed in the exhibition room Mr. Dickson's was not nearly so compact and well-formed a bunch as Mr. Curror's, and required a great many more strings to keep it in position than the other; but until the Judges were done with it there was no evidence that it had suffered in any way, and I saw it replaced on the board and put back beside the other on the marble slab in front of the mirror in good condition.

In the position they were thus placed in no one could see the stem of Mr. Curror's bunch without getting upon or over a bench of fruit that stood in front of the marble slab referred to, and I fear many observers came to the conclusion that the bunch was two and not one, on no better evidence than the shape of the bunch.

I was most careful in examining both bunches under this head, having been one of the Judges that awarded the prize to Mr. Hunter's great Hamburg bunch at Belfast, where the same plea was set up after the bunch was removed, but not before. On that occasion, as on the recent one, the bunch was a single one attached to the lateral by one single homogeneous stem.

I had written this far when the Journal was handed to me, where I note that you have closed the correspondence about this matter. I, however, hope that as my object is to explain what really was the state of the case, and this from the very best means of observation, that you will insert what I have written; pressing engagements and absence from home prevented my doing it earlier.—W. THOMSON, *Tweed Vineyard*.

### A STANDARD MAGNOLIA GRANDIFLORA.

This grand plant we usually find trained against walls with a south aspect, where its large, bright green, glossy foliage is pleasing all the year round, and during late-summer months its value as a decorative plant is greatly enhanced by its large white fragrant flowers. It is very rarely that we see it grown either as a bush or pyramid, yet I feel confident there are many sheltered nooks in the south of England where, if so grown and treated kindly, it would do well. In the north no doubt it would be impracticable.

We have a standard pyramid growing in the open flower garden here which has attained the height of 26 feet, with branches covering a circle 12 feet in diameter. It has a clean bole 3 feet in length, which at 1 foot from the ground has a girth of 21 inches. It is true the habit of the plant is somewhat straggling, nevertheless it is very much admired by all who see it, more especially when in bloom, and this grand plant is very rarely without bloom from the early part of July until frost arrives. The foliage being so much larger than other evergreens it makes a very striking object, even in the dull months of winter.

This plant speaks volumes in favour of the mildness of the climate of Clevedon, which, by the way, is rapidly becoming one of the most fashionable watering places of the west.—THOS. FOOTZ, *Gardener, Clevedon Court, Somerset*.

### CALADIUM ARGYRITES AND GESNERA CINNABARINA.

ABOUT the prettiest and most effective arrangement possible with two plants, is to form a row of these, plant about. The rich velvety crimson foliage of the Gesnera brings out the striking beauty of this the most beautiful and useful of all Caladiums, and *vice versa*. They are two of the most useful and effective decorative plants that can be grown, and it is a

wonder they are not more grown than they are, being of easy culture and can be dried-off and stored away for nearly half the year, giving next to no trouble. To keep them successfully when at rest the Caladium should not be subject to a lower temperature than 60°.—D. THOMSON (*in The Gardener*).

### OLLA PODRIDA—A CONTINENTAL TOUR.—No. 6.

IN my last I left off at the Lake of Lucerne, from there we returned *via* Basle to Paris. There was not much in a tedious journey between Basle and Paris of fourteen hours' duration to interest any of your readers in a horticultural point of view. One thing that struck me was the immense quantity of Cherry trees that were grown in part of the district that we passed through which were laden with fruit. I believe a great many of these Cherries are grown for the sake of making liqueurs of their kernels. Some of the trees were very beautiful—the fruit of that brilliant red just before approaching to ripeness; and it showed pretty clearly how free the country was from small birds of all kinds that such quantities could be grown in open standards unprotected. The almost total want of animal life of any kind, either of birds in the trees or cattle and horses in the fields, is a great drawback to English taste. We may be, and no doubt are, too much overrun in many places with the British house sparrow, which I am convinced does more harm than good, in spite of all that his numerous admirers may say for him as a destroyer of insects; but we miss abroad our British songsters and robins, and that most useful of all birds the starling; for while mentioning birds I cannot resist a few words of praise of a bird which I believe does more good to the farmer and horticulturist than any other as the active destroyer of wireworm, cockchafer grub, and all larvae of the sawfly tribe.

I need not say much about Paris, as I have already in the pages of the Journal made remarks on the parks and gardens there. I think anybody who went in for the mixed flower-border style of gardening would have their faith much shaken by inspecting the gardens at the Tuilleries and the Luxembourg. Both gardens were planted this year and last in as nearly as possible the same way—about four to six different kinds of plants being used in clumps, as *Ageratum*, *Calceolaria*, *Antirrhinum*, *White Cosmos*, with standard *Lilacs* trimmed to a head, interspersed with a few standard *Roses*. These plants were generally in circles of seven plants, or planted round the standards, and the whole bordered with three rows of *Geraniums*; but these *Geraniums* were planted in a mixed style, as each row was the same, but had four different colours—scarlet, salmon, white, and pink—planted plant for plant in a row, and generally a repetition of the same sorts of *Geraniums*. The effect of whole lines of parallelogram-shaped beds being all planted and bordered the same way was most monotonous. For instance, a large square garden in front of the Tuilleries, between the *Boulevard Rivoli* and the river *Seine*, is divided by two broad paths at right angles to each other in four equal quarters. Each of the four equal quarters has a bed about 6 feet wide going round it, and each of these 6-foot-wide beds was planted, as far as I could see, with identically the same plants and identically the same way, and bordered with these interminable rows of mixed *Geraniums*.

The gardens in front of the *Cafés Chantants* in the *Champs Elysées* were certainly planted in better taste, as here, as a general rule, the beds are large, and contain evergreens and deciduous shrubs, and are bordered by different kinds of bedding plants, each bed generally having only one or two kinds of plants, but used in masses. For instance, a bed of *Rhododendron* edged with three rows deep of scarlet *Geraniums*, with two rows of *Lobelia* in front; and scarlet *Hibiscus* with white-leaved *Geraniums* in front. Here, too, and up the *L'Avenue de l'Impératrice* and in the *Parc Monceaux*, some of the larger-leaved subtropical plants, as *Canna*, *Ricinus*, *Zea*, *Cannabis*, *Caladium*, &c., are used, though my visit was too early this year to see them to any advantage. I can congratulate them, too, on an improvement on their grass in places, especially about the *Champs Elysées*, where the mowing machine is much more freely used; but in the *Parc Monceaux* and in the Tuilleries gardens and Luxembourg they still prefer to let the grass grow for two or three weeks and lay it flat by the hose. The *Parc de Buttes Chaumonts* is capable of being made a very beautiful place if it were not in some respects very artificial with sham concrete rocks and very shallow lakes, and hardly any flowers are made use of; almost the only bed being one of *Valerian*. There is a great opportunity here for large masses of herbaceous plants, and one would like to see it

put in the hands of an able man to select the best kind of plants, as there are many places especially suited for the dwarf alpine plants, as the Sedums, Saxifrages, Auriculas, Cyclamens, &c.; while in others Hollyhocks, Delphiniums, Phloxes, &c., would help to enliven the place.

On the whole the Parc Monceaux is better worth seeing than any other public garden in Paris. It is only small, but there is better taste and more diversity displayed in it than any other. We have here different kinds of Begonias in use; varieties, too, of Coleus, Alternanthera, and other bright-foliated plants. But there is nothing in it in my mind to compare either with Hyde Park, Battersea Park, or the Crystal Palace; and if London had only the climate and, above all, the clearer atmosphere and absence of coal smoke which Paris enjoys, our London parks would still more eclipse anything that any other city can show. We may well take a lesson from Paris in the management of their trees; but whether in our climate, even if our streets were wider, we could grow avenues of trees in the streets as in the boulevards is doubtful. I was glad to see the Plane trees on the new Thames Embankment looking so healthy, and I have no doubt in our more open spaces, where plenty of water is given through a hose to cleanse the leaves, that many other trees would flourish. The markets in Paris at the Halles Centrales are well supplied with flowers and vegetables, and there are also a great many cut flowers sold in the flower market at the Madeleine; but one is struck with the paucity of flowers which are grown in window boxes, and there are not many window plants to be seen about, nor, as far as I can learn, are there many great leading nurserymen with much glass devoted to plant-growing—certainly no establishments like those of Messrs. Veitch, Williams, Henderson, Bull, and others; the chief energy of nurserymen near Paris being devoted to the commoner cut flowers, or smaller plants, as Dracenas, Palms, &c., for dinner-table decoration.

One word as to the French *sécateur*, which I see there is a drawing of in the last number of the *Journal of Horticulture*. I have had three within the last two years, but I find all the work is done with an old pair of common English garden scissors of a full size, which have certainly been in use for more than six years, and with which I can do double the amount of work in pruning Rose trees or bush fruit trees, &c., and much more satisfactorily. The *sécateurs* are dependant on springs to open them, which often get out of order, and they will bear no strain in cutting large shoots.

I will conclude my notes next time with a few remarks on Battersea Park, which I went to twice on my return to England in order to contrast English with foreign gardening.—C. P. P.

### RUSSIAN APPLES.

THE Department of Agriculture did a good thing when it imported from Russia a number of the popular varieties of Apples grown there. In the distribution of scions from those trees some fifteen varieties fell to our share, and the grafts made for them all grew, and are now fine thrifty trees, says Dr. Hoskins of Newport, Vt., and these have been grafted from until we have more than a hundred young trees from this stock. The success of the Tetofsky and Duchess of Oldenburg Apples, which were among the earlier importations from Russia, probably stimulated the agricultural department in its efforts to bring over others; and though it is too soon to do more than begin the record of results, we cannot but be pleased with the thrifty growth of these new varieties and their adaptedness to our cold winters. But two of the varieties received from the department have yet fruited; one, the Yellow Transparent, last season, and another, the Grand Sultan. They are both early autumn varieties, the former ripening with the Duchess of Oldenburg, and the latter early in September. Both are handsome and excellent Apples; the Grand Sultan particularly so, being of the largest size, a bright green in colour, becoming a rich waxy yellow in ripening. The flavour is mild, the flesh very mellow and soft, something like the Maiden's Blush in quality. We shall watch with interest the coming into bearing of all these new sorts, hoping that among them may be found not only autumn but winter varieties, that will prove good and profitable in the colder sections of the State, says our contemporary of the Vermont "State Journal."—(*Boston Cultivator*.)

PREVENTION OF THE CARROT GRUB.—Make your drills in the usual way, only deeper and wider, and nearly fill them with

wood ashes. Sow the Carrot seed thereon, and cover with soil. Such was a friend's advice, and I am glad to say that from that time up to the present I have not had a grub in my Carrots.—C. M. McGrow, *The Gardens, Nash Court, near Faversham*.

### THE CHRYSANTHEMUMS IN THE INNER TEMPLE GARDENS.

ON no previous collection of this finest of autumn flowers, which has for many years been held in the Temple Gardens, has a larger amount of public attention been bestowed than this year. The Gardens are crowded with visitors each day, and will probably so continue to be for the next fortnight, during which time the plants will remain in good condition. The public appreciation of the display must be as gratifying to the Society of the Inner Temple as it is encouraging to their able gardener, Mr. Newton.

The collection includes 450 plants trained on single stems, each bearing from three to six blooms. The plants are plunged in the south border, and are protected by glass and canvas. An opaque background is needed to show the blooms to the greatest advantage, but as at present arranged the collection is worthy of a visit from all who can appreciate vigorously-grown plants, noble flowers, and rich healthy foliage. It is one of the finest of the many fine displays which have preceded it, and Mr. Newton is to be congratulated on the success of his efforts.

It is not possible for all the varieties to be at their greatest perfection on a given day, but most of the standard sorts are now in their prime.

The most striking features of the collection are the perfect blooms of White Beverley; these are particularly massive and possess fine form and high finish. George Glenny, the new sulphur-coloured flower, is in exceedingly good condition, and is evidently a valuable variety. Bismarck attracts a large share of popular attention; it is of a golden amber colour, very large, incurved, with loose petals, and not likely to be enduring. Refulgence is a new variety, not large, but exceedingly rich—surpassing Progne in its glowing velvety surface—it is reflexed, and of a bright crimson-claret colour. King of Denmark, rosy lilac with golden tips, is very effective; and Prince Alfred has immense and perfectly-formed blooms of rosy crimson. There are some grand blooms of Gloria Mundi, and fine examples of bronze and yellow Jardin des Plantes. Guernsey Nugget has blooms nearly 6 inches in diameter, and of the same size are those of Empress of India. Elaine, amongst the Japanese varieties, is conspicuous by its flowing outline and its bluish-white purity; Red Dragon in this section is also noticeable. Garibaldi, a bright chestnut colour, is very fine; and such varieties as Mrs. G. Rundle, Vesta, Prince of Wales, Pink Perfection, Golden Beverley, and Prince of Anemones are, as usual, constant and excellent.

The new edition (the fourth) of Mr. Newton's pamphlet on his mode of cultivating the plants is in great demand; his work recommending him as a sound guide and teacher.

In the Middle Temple Gardens Mr. Dale has also a small display, but owing to extensive building alterations his plants have had to be crowded together, and so have become drawn, and have had no chance to perfect blooms of their usual excellence.

### TREES AND SHRUBS FOR THE SEACOAST.

ON page 388 information is asked as to sea-spray-enduring trees or shrubs. Judging from my own observation of several years on this part of the Anglesey coast I give the first place to Evergreen Oak and Gorse both single and double-flowered. The Evergreen Oak is the finest of all trees for shelter within reach of spray from the sea. It is certainly of slow growth, but neither wind nor spray injures it. Amongst deciduous trees and shrubs of quick growth the best are Sea Buckthorn, Black and White Thorns, Sycamore, and Laburnums.

If I were planting close to the sea for shelter I should put an outer belt of Gorse and Sea Buckthorn intermixed with Blackthorn, followed by an inner belt of Evergreen Oaks. The rapid growth of the Buckthorn would form a useful shelter for the Evergreen Oaks, and enable them to start much stronger than if fully exposed in the first instance. Of Conifers the best is *Pinus insignis*, which is also the handsomest of all the Pinuses. *P. Laricio* is also very useful and of quick

growth, and both will stand a certain amount of spray, but they will not succeed where they "get well splashed with sea spray."—J. ELLAN, *Bodorgan, Anglesey.*

### CARRION FOR VINE BORDERS.

I ENTERED on my duties as foreman in the gardens of Polmaise, near Stirling, in November, 1859, where a range of new vineries and plant houses had been put up about a year previously, the borders being all new at the same time and the Vines one year planted. The borders were made of turf mixed with carrion and broken bones. The first year after planting the Vines seemed to have done fairly well, but I did not think the wood ripened so well as it ought to have done, being soft with a large amount of pith.

When top-dressing the borders in December I observed the roots that were near the surface to be large and fleshy, with strong white-looking points. Many of those roots seemed to be decaying or dying back, and I have no doubt this was the result of their fleshy condition, caused by too powerful a stimulant, being full of sap with no foliage at this time of year to take it up, and consequently being in the very worst condition for standing the winter. The second year after planting there was a little difficulty in inducing them to break evenly; they, however, set and ripened two and three bunches on each rod, averaging about 2 lbs. each.

I left this situation in November, 1860, and had an opportunity of seeing the Vines again in May, 1866, nearly six years after I left, and the Vines nearly eight years planted. At this period, in ordinary circumstances, they ought to have been in full vigour and carrying splendid crops; but I think it would be difficult to imagine Vines to be in a more completely deplorable condition—the young shoots being like good wheat straws, with bunches and berries quite in keeping with the wood and foliage, and this the result, I have no hesitation in saying, of the presence of the too powerful, unnatural, and loathsome stimulant of carrion in the borders.

I think it is well that "INQUIRER'S" employer yielded to his reasoning, notwithstanding that a gardener told him that carrion was a "good thing," and that "Vine roots would go half a mile to it." I certainly would let them have the opportunity of going half a mile to it by burying it that or any other considerable distance from Vine or other fruit tree borders.—J. FAIRWEATHER.

### SHREWSBURY POMOLOGICAL SOCIETY.

THE annual Exhibition in connection with this Society took place on October 17th, and was one of the most successful ever held. The present season has been unusually favourable for the cultivation of fruit, and the Society probably never held a Show where so much was shown and where such uniformity of excellence was apparent. There were altogether 840 dishes of Pears and Apples.

The following list shows how many dishes of fruit each exhibitor showed:—Mr. Wilson of Bletton (nurseryman) 35 dishes of Apples, 25 of Pears; Mr. Thomas Southam (amateur), 18 of Pears, 8 of Apples; Mr. Tomkiss, gardener at Ound Hall (a splendid collection), 50 dishes of Pears, 25 of Apples. Mr. John Wilson of Leaton Knolls showed a fine collection of Pears in 60 dishes, and 50 of Apples. Mr. Whittaker, gardener at Crewe Hall, sent 30 dishes of Pears, all in fine condition and very correctly named. Among the amateurs Mr. E. Cope of Beascham House carried off the palm, and with one dish of Pears certainly eclipsed most of the gardeners. The gardener from Attingham (Mr. Pearson) showed 45 dishes of Pears and 55 of Apples. Mr. Hoskins of Onslow sent a very choice collection, consisting of 28 Pears and 24 dishes of Apples. Mr. Jarvis, the gardener at Ondonover, sent one of the most choice collections in the Show, embracing 75 dishes of fruit. Mr. Stanton's gardener (Mr. Griffiths) showed 20 dishes of Pears and 6 of Apples. Mr. Jukes of The Mount also distinguished himself as an amateur, especially in Pears, of which he had fourteen dishes, and of Apples 7. Mr. Austin of Allscott, Wellington, showed a small but very choice collection of fruit, consisting of 8 dishes of Pears and 7 of Apples. Mr. Condé Howell of Rhieuport, Montgomeryshire, showed a splendid collection of Apples in 22 dishes. The great collection of the Show was that of the Messrs. Oldroyd & Son. It embraced 190 dishes of Pears and 180 of Apples. Every variety of well-known species were shown in splendid condition. We were particularly struck with the show of older Apples, of which there were 21 dishes.

**MONSTER APPLE.**—A fruit grown in a gentleman's garden at Leek, Staffordshire, in the open air on a cordon tree is

15 inches in circumference, and weighs 1 lb. 4 ozs. I believe the name is Lord Nelson.—T. B.

[It is probably Kirke's Lord Nelson.]

### ROYAL HORTICULTURAL SOCIETY.

WE have been requested to publish the following summary of the privileges of the Fellows for the year 1878:—

The privileges of a forty-guinea Life Fellow and Fellows paying four guineas a year with two guineas admission fee, which fee will be remitted in favour of the wives or husbands of deceased Fellows being themselves elected Fellows:—

1. To receive one ticket giving personal admission every day, and to all shows, fêtes, conversations, and promenades, both at Chiswick and South Kensington.
2. To receive two tickets on which shall be inscribed the name of his or her nominees, which shall give personal admission to such nominees every day, and to all shows, fêtes, and promenades, except on such occasions as are specially reserved by the Council.
3. To purchase for members of his or her own household, at the price of £1 1s. each, non-transferable tickets, which entitle the persons whose names are inscribed thereon to all the privileges of personal admission that Fellows themselves possess, except that of admission on specially reserved occasions.
4. To purchase for £2 2s. a garden ticket which will admit all the children of the Fellow who are under twelve years of age, and who must be accompanied by not more than one attendant to every three children.
5. To purchase for £1 1s. each books containing twenty-one orders of admission to the Saturday promenades (for admission to which no money shall, in future, be taken at the gates).
6. To admit, by personal introduction, two friends to the gardens at South Kensington on Sundays.
7. The power of admitting friends daily (Sundays excepted), by written order to the garden at Chiswick.
8. The right of purchasing, previous to the day of the shows or promenades, tickets at reduced prices.
9. The right of obtaining upon application such seeds, plants, and cuttings as the Society may have in sufficient numbers to meet the Fellows' applications.
10. The right of purchasing the flowers, fruit, &c., grown at Chiswick which may not be required by the Council for scientific purposes.
11. To receive, on application in writing, a copy of the publications of the Society.
12. The right of voting at all meetings of the Society.
13. The right, on giving notice in writing, of being relieved from the yearly payments while resident abroad.
14. Free admission to the reading-room and Lindley library.

The privileges of a twenty-guinea Life Fellow and Fellows paying two guineas a year with two guineas admission fee, which fee will be remitted in favour of the wives or husbands of deceased Fellows being themselves elected Fellows:—

15. Entitled to one yearly ticket, not transferable, admitting the Fellow every day, and to all shows, fêtes, conversations, and promenades, both at Chiswick and South Kensington.
16. Entitled to the privileges mentioned in Nos. 5, 7, 8, 10, 11, 12, 13, and 14.
17. To half the privileges mentioned in No. 9.
18. To admit by personal introduction, one friend on Sundays to the gardens at South Kensington.

Tickets at £1 1s. per annum admitting to all shows, scientific meetings, and lectures of the Society (but not to Promenades), and to the Chiswick Gardens on week days, will be issued to *bona fide* gardeners recommended by two Fellows.

All former Fellows of the Society who withdrew therefrom (after having paid all subscriptions due from them to it), will not be required to pay a fresh entrance fee if they shall be re-elected in the year 1876.

### GARDEN SCISSORS—CARROT AND ONION GRUBS.

THE *sécateur*, or French pruning shears, is no doubt "a very handy little instrument," but I think the old pruning scissors are much more "handy." The length of the *sécateur* which I have is a little more than 7 inches, but the opening of the cutting part being so nearly wedge-shaped the branches pass along it to near the point before being severed, consequently there is much less leverage, and more power is required to cut them off. The old pruning scissors which I have are a little more than 6 inches long, but the opening for cutting being more crescent-shaped or hooked, and much nearer the rivet or screw, has a much greater leverage. I find them much easier to work, and they will cut off much thicker shoots than will

the *secateur*. With these instruments the operator will do more work, but they are not equal to the knife for a clean cut. The knife does not crush the bark and wood as pruning scissors and all such-like pinching instruments must of necessity do.

A few words about "grubs," which have been written about in late numbers of the Journal. Several years ago our Carrots were very much eaten by them. In November of last year they were so eaten that I gave the ground intended for Carrots the following season a good dressing with quicklime, scattering it in the trenches as it was dug. At the time of sowing, after drawing the drills and sowing the seed, I sowed a mixture of soot and wood ashes in the drills, and the Carrots are this year perfectly clean, scarcely a grub-eaten one to be found in the bed. I consider soot and wood ashes (or the ashes made of burnt garden rubbish of any kind) one of the best things that can be used. I invariably mix it with the soil in which I sow Broccoli and such-like seeds, also where I prick them out, and do not have one clubbed plant in a hundred.

I would recommend those who are troubled with the Onion maggot to trench their Onion ground 18 inches deep as early in January as possible, putting in plenty of fresh manure, if direct from the stables so much the better; if pig-dung can be procured it is to be preferred to all others. Dig over the surface of the ground 3 or 4 inches deep a few times in dry weather during the spring; do not sow too early; keep a sharp look-out for the maggot, and if it should make its appearance at once sift some rather fine coal ashes all over the beds about half an inch thick; water with liquid manure twice a-week unless it is a very wet season, then I think there will not be many Onions eaten by the maggot.—D. WALKER, Gardener to B. H. Collins, Esq., Duncormick.

### NOTES AND GLEANINGS.

THE GREAT SHOW OF FRUIT AND CHRYSANTHEMUMS to be opened at South Kensington on the 10th inst. is expected to be a great success. The decision of the Council to keep the Show open for two days, to light the conservatory and arcades with gas, and to admit the public from 6 to 8 P.M. on the first day, and from ten to four o'clock on the second day, on payment of 1s., is a step which can hardly fail to meet with public appreciation. The prizes are all to be paid without any rebate on this occasion, and thus the utmost encouragement is given to exhibitors as well as to the public to inspect their productions.

THE USUAL MONTHLY DINNER of the Horticultural Club will be held at the club house, Adelphi Terrace, on Wednesday, November 10th, at 6.15, the day on which the great Fruit and Chrysanthemum Show of the Royal Horticultural Society will be held.

THE following gentlemen have consented to act as JUDGES at Messrs. Suttons' forthcoming ROYAL BERKSHIRE ROOT SHOW:—Professor WRIGHTSON, Professor of Agriculture at the Royal Agricultural College, Cirencester; W. Scott Hayward, Esq., V.P. of the Kingseote Farmers' Club; W. Brinshaw, Esq., Her Majesty's Royal Bagshot Farm; H. Simmonds, Esq., Steward to John Walter, Esq., M.P.; and for vegetables and Potatoes, Mr. Daniels, The Gardens, Swyncombe; and Mr. Lees, The Gardens, Whiteknights.

WE are informed that M. Ed. André is about to depart on a VOYAGE OF BOTANICAL DISCOVERY in South America, and will visit Colombo, Ecuador, Peru, and Brazil. From the labours of such an excellent and energetic botanist the gardens of Europe may hope to secure many valuable additions.

THE Queen has accepted from Mr. Francis George Heath a copy of his new work, "THE FERN PARADISE: a Plea for the Culture of Ferns."

"MARTIN DOYLE," one of the earliest writers who aided us a quarter of a century since, is dead. The Rev. WILLIAM HICKEY, Rector of Mulranee, near Wexford, in Ireland, died on the 24th of October, aged eighty-eight. Besides contributing to our columns and those of other periodicals, he was the author of many useful cheap volumes on subjects connected with the cultivation of the soil and domestic economy. No one has written more home to the needs of the small farmers and peasantry of Ireland.

THE *Irish Farmers' Gazette* announces the death of WILLIAM PLANT, Esq., M.D., at his residence, Plantation, Monkstown, on the 23rd ult. Few names were more familiar to florists than that of Dr. Plant, associated as it has been for more than half a century with the most successful cultivation of his three specialities—namely, Auriculas, Carnations, and

Tulips. As a grower of the first-named he had no superior. To see his Auricula frames, and, above all, his marvellous Tulip beds, in their flowering season, was a sight worth going a long way to see. Roses, also, he was fond of, and grew them successfully; but the Auricula, Carnation, and Tulip were his *passion*. Dr. Plant was, we believe, at his death the oldest member of the Royal Horticultural Society of Ireland, and was for more than forty-five years a member of its Council. He had arrived at the age of eighty-five years.

BATH AND WEST OF ENGLAND SOCIETY.—The usual Council Meeting of this Society was held at the Grand Hotel, Bristol, on the 26th of October, under the presidency of the Right Hon. the Earl of Ducie. The Council resolved that the meeting (Hereford, 1876) shall commence on Whit-Monday, June 5th, and extend over that and four following days; they also settled the stock and poultry prize sheets and implement regulations, but they were ordered not to be published until after the November meeting of the Council, in order that any special prizes offered by the Local Committee may be published simultaneously with those offered by the Society.

### WHAT IS A BUNCH OF GRAPES?

I CONSIDER a bunch, or cluster, of Grapes must proceed from one eye, no matter what form it takes after its exit from the eye—fasciated, elongated, or any form, provided it proceeds from one eye. One may just as well expect two seedling trees from one seed as expect two bunches of Grapes from one Vine eye. Believing this to be the true and simple definition of a bunch of Grapes, I say, unbiassed in any way, that the Eskbank bunch of Grapes was decidedly one bunch. You may call it a big bunch, a monstrous bunch, a beautiful bunch, or an ugly bunch, yet it is simply one bunch or cluster of Grapes.—HENRY KNIGHT, *Floors*.

I THINK there is only one way of deciding the difference between a single and a double bunch of Grapes. I maintain that a single bunch is one that has one clear stem from the wood, and if that stem be only half an inch long and is round and perfect it is really a single bunch, let it have as many shoulders as it may below that. But, on the other hand, if there are two stems issuing distinctly from the wood without being united into one stem they are two bunches; and if Mr. Curror's bunch of Grapes at Edinburgh had, as Mr. Loudon and Mr. Ingram state, quite 1½ or 2 inches clear space between the stems, it seems quite clear that it was two bunches, and as such I should have felt justified in judging them.—THOMAS RECORD.

THE substantial testimony furnished by Mr. Dickson in support of his case has now removed the subject of dispute out of the region of mere assertion. If the Edinburgh Society, or those who may be responsible in the matter, now condone by their silence and inaction what the public must at present regard as a gross miscarriage of justice, they will court a not very enviable reputation among horticulturists. It is not now a controversy between two rival growers, but is a question of public importance, which has increased in magnitude by official silence. Are those who are responsible waiting and wishing the fire to burn itself out, after being a nine-days wonder? As the case stands at present such surmises are at least excusable. I hope, however, the subject will not be allowed to drop.—A GRAPE-GROWER.

A BUNCH of Grapes should grow from a single eye on the rod of last year's growth, and hang by a single stem when exhibited; but if from a double eye there will be two distinct stems, which to all intents and purposes constitute two bunches—alias twins or monstrosities.—W. McPHERSON, *Sneeton Hall Gardens, Ashbourne*.

[All good authorities agreeing in the definition, no more need be inserted upon the subject.—EDS.]

WE do not recollect any subject which has absorbed so completely the attention of the gardening world as has the discussion which has grown out of the Great Exhibition of fruit at Edinburgh. The letters which we have published from some of the first Grape-growers and most able gardeners of the day, together with others which we have received on the same subject, are a sufficient testimony of the state of the horticultural mind on this question.

It is not for us to express an opinion as to the correctness or otherwise of the awards in the class for the heaviest bunch

of Grapes, for it seems to us that the Judges must, as regards that Show, be the sole authorities. It must be remembered that they were invested with full discriminatory and judicial powers. They constituted the highest tribunal of the Royal Caledonian Horticultural Society in determining the legitimacy, so to speak, of the products of every competitor, and were gentlemen of ability and integrity. They, according to rule 6 of the schedule, had power to "withhold" or "modify" the prizes, and from their decision there is no appeal. We must in the matter at issue assume that they have seen no sufficient ground to warrant them in "modifying" their decision in the award of class 26 of the schedule. The official stipulation was for "one heaviest bunch of white Grapes," and the official award was made to the bunch which was beyond all doubt the heaviest when weighed by them. The competing bunches were weighed by the same officials, with the same scales, and at the same time, and one was found to weigh over 26 lbs. and the other under 26 lbs. The Judges had no other object than to do justice, and they awarded the prize to the heaviest bunch. Their decision was called in question, and the justice of it was disputed. But considering the case calmly and without bias—holding the balance perfectly evenly—we are bound to ask that if they had awarded the prize to the bunch which weighed under 26 lbs. instead of the one which weighed over 26 lbs., would their decision have received general approval? We think not. They would have been taunted on the standing

existed will be established, and none can regret that the matter has been fully ventilated. So long as the judging of a bunch of Grapes was left to individual interpretation, so long must suspicion lurk in many minds, but if once an accepted standard can be arrived at a great cause of doubt and dispute will be removed.

We submit the accompanying figures as illustrating what a bunch of Grapes should and should not be.

Fig. 84 is a cluster of fruit springing from two distinct axes, and constitutes undoubtedly two distinct bunches, and should be unhesitatingly disqualified when offered in competition as "a bunch of Grapes."

Fig. 85 is a cluster of fruit springing from the same eye,.

Fig. 84.

authority of weights and scales, and the wording of the schedule, in awarding the prize to the lightest bunch.

But then comes the objection that the bunch was not a bunch, or that it was more than a bunch. But to what authority could the Judges or anyone else turn? to what standard could they appeal? on what written law or definition could they base their authority in proof or disproof of the exhibit being legitimate? There was no law on the subject, and they made one on the spot. They could not turn to any recorded definition, so they relied on their own judgment and the decision of scales and weights.

There was not a written decision to guide them, simply because there had not been a necessity for such a record; yet, as the sequel has proved, there was an accepted reasonable standard which has now found utterance, and that utterance we shall attempt to define.

It is the unanimous opinion of men who are capable of comprehending a given subject that enables a standard to be arrived at which ought to be accepted and respected. We are in possession of authorities sufficient to define what, according to the professional and practical mind, is the standard for judging a bunch of Grapes. We submit that standard for future guidance—we submit it until something else expresses a better reflex of the horticultural mind as the condensed convictions of British Grape-growers.

In the controversy which may now fittingly close nothing has been expressed which should in any way mar the good feeling which should exist between competitors; but, on the contrary, if an accepted standard can be arrived at for judging "a bunch of Grapes," greater confidence than has previously

Fig. 85.

which in reality contains two axes of growth or bunch bases, and the cluster is a twin-bunch, and it cannot be legitimately regarded as "a single bunch of Grapes;" it must also be disqualified.

Fig. 86 is a true single bunch of Grapes as the distinct growth from a definable point of the axis, having a distinct

Fig. 86.

simple peduncle between the lateral and the shoulders, and afterwards dividing into shoulders and other branches. No matter how many branches it may afterwards assume, provided it breaks from the lateral with one simple peduncle, it is a legitimate single bunch of Grapes.

#### OSMASTON MANOR,

THE HEAT OF J. WRIGHT, ESQ.—No. 1.

"G." HAS been revelling in his researches amongst the antediluvians—those who were before the Flood, the flood of



antiquity. I was in the flood—the modern deluge, which submerged the country for miles, converting the roads into rivers and the fields into lakes, uprooting garden crops and washing away the fruit from the orchards. That is a portion of what I saw in my route through the midlands.

Ashbourne, at the foot of the Derbyshire hills, is the railway station for Osmaston. The rain on the day of my visit poured in torrents, and the streets were 8 feet deep in water, the people battling the flood with boards and clay to keep it out of their dwellings. After a watery journey of three miles and a half I reached my destination, and my readers may think of me as faintly illustrating the unenviable position of that familiar comparison a "drowned rat." I cannot bear personal testimony of the efficacy of Mr. Marshall Hall's system of restoring persons apparently drowned, but I can that of Mr. and Mrs. Booth, and I shall always think of the gardener's cottage at Osmaston as the hospitable Ararat of my watery midland tour.

Osmaston—its mansion, grounds, and scenery—is one of the finest of the Derbyshire demesnes, and is, perhaps, second only to the ducal seat of Chatsworth in extent, picturesque position, diversity of attractions, and good keeping. The mansion is of recent erection; it was commenced in 1846, and completed in about ten years by the late F. Wright, Esq., a gentleman who had a just claim to a trio of greatness—great wealth, great taste, and great benevolence. He was a patron of all that was good, a friend to all who needed the hand of friendship. In building his mansion he did not consider his own luxuries only, but he erected at the same time a church and, I think, a parsonage (one amongst many), also a village. The church at Osmaston is a massive and imposing structure, and the village is a model village. It is tenanted entirely by dependants on the estate, and the labourers are housed in semi-detached villas having good gardens and good—that is, low rents.

Mr. Wright left behind him an honoured name and qualities which are inherited by his sons. The present owner of Osmaston is the same kind master as his predecessor, and the same good landlord; he has the same disposition to improve his residence and grounds, and his admiration for and knowledge of trees and shrubs enables him to plant and project to good effect. Another son, whom I am honoured by knowing, has, in obedience to his benevolent nature, relinquished the quietude of a country parsonage and taken upon himself the more laborious duty of Honorary Secretary of the London Church Missionary Society, and thus devotes his means and ability to the public good. I name this as an instance of the power of example, the fruits of practical teaching.

For some years Mr. Booth had relinquished gardening; he had, however, a continual yearning for his old love, and this and another journal throughout these years were his cherished companions, keeping him abreast of gardening progress, and he started afresh, feeling no loss; and the state of the gardens at Osmaston at the present time afford sufficient testimony of his skill and the usefulness of the gardening press.

I will now glance at the place itself. The features which demand notice are the mansion, conservatory, aviary, gardens, rockery, and pleasure grounds.

First as to the MANSION. The engraving gives a very good view of this, but does not adequately show its size. It is a stone building of great solidity, and in appearance is plain, massive, and dignified. It has recently undergone considerable alterations. When the view was taken there were no chimneys, but all the smoke was taken away by the lofty shaft which is in the kitchen garden, and is seen on the left of the engraving. This shaft was a great work and ornamentally built, but the present owner, not liking its appearance, lowered it considerably. There was then not a sufficient "lift" for the smoke, and chimneys were erected on the mansion. The shaft is about 18 feet in diameter at the base. It is built on arches on a foundation of concrete 18 feet in depth. Beneath the arches are the boilers which heat the garden structures, and the shaft takes the smoke from the fires. It is ascended by a spiral staircase of cast iron, and the view from the top, in its now lowered state, is magnificent.

Beneath the mansion are cellars of no mean order. They are noteworthy as containing a railway for the conveyance of coals and other requirements. From these cellars to the different parts of the mansion are hydraulic lifts, so that everything can be conveyed into and from the different rooms with the greatest ease. Every room has, I believe, a connection with the cellars, and the lift will lift men as well as com-

modities. This statement will give an idea of the size and elaborate finish of this fine mansion. I come now to the

CONSERVATORY.—This is connected with the mansion by a museum and picture gallery, which is shown with the supporting arcades in our engraving. These arcades are now covered with Roses, Clematis, and other ornamental climbing plants. The picture gallery is on a level with the gallery which encircles the conservatory, and affords a lengthy and beautiful promenade. From the basement of the structure is also a spiral staircase leading to the gallery above.

The conservatory is a noble structure, lofty, and with a semicircular roof. It has a central promenade and two side walks. In the centre is a fountain surrounded by fine standard Orange trees in perfect health and sprinkled with fruit. The two beds on either side the central walk are planted with Camellias, Palms, Tree Ferns, &c., and are further ornamented with Agaves and other appropriate fine-foliaged plants. Flowering plants are also interspersed in considerable numbers. Azaleas are well and extensively cultivated, and all the usual decorative plants are grown and forced on a large scale. Solanums are much relied on for their bright-coloured fruits, Wetherill's hybrids being found the most effective of the scarlet-fruited section; and the Golden Gem of Messrs. Veitch and Sons being found by Mr. Booth to be the best of the yellow-fruited varieties. A thousand Hyacinths are forced annually, and other bulbs in proportion, and these, with the plants named and thousands which we cannot enumerate, create splendid displays during the winter and spring months. Camellias are also cultivated in pots, and with frequent top-dressings, copious waterings, and cleanliness are in fine health and condition.

I must not leave the conservatory without noticing the summary treatment to which a fine *Alsophila* has been subjected. It is well known that Tree Ferns will occasionally grow too tall for the structure in which they are planted. The specimen here was pressing against the roof, and its beauty was lost. Mr. Booth cut it down, took off about 6 feet from its stem, dug up the root, and planted the top as a cutting. Previous to putting in this gigantic cutting he denuded it of its fronds; he planted it firmly in good soil and kept it moist. Eventually the cutting pushed some abnormal growths, which were, however, followed by true fronds, and it is now a fine and well-rooted plant. The cutting was put-in in February of the present year, and was about 10 feet in length. It was a somewhat novel yet thoroughly successful experiment, and is worthy of record. In the conservatory was flowering a fine plant of *Hedychium Gardnerianum* which, Mr. Booth says, is admirably adapted for the subtropical garden: its light yellow flower spikes were very effective.

Adjoining the conservatory is a cool exotic fernery, the Ferns growing in niches in the walls, in baskets, and on rockwork. On the rockwork is planted that fine old variegated plant *Aspidistra lurida variegata*, which is in exceedingly good health and colour. I cannot dwell longer on this noble conservatory and its adjuncts, which was once heated by a mile of hot-water piping, but now the heating is improved by larger pipes and a better system of distributing their heat. Near to the conservatory is the

AVIARY.—I am not an ornithologist, but that is not necessary for the enjoyment of this beautiful enclosure. It is enclosed by massively built walls about 15 feet high, and has an arched wire roof. The centre of the ground has been excavated and formed into a rugged and precipitous dell. Bold rocks jut out at every conceivable angle and with delightful irregularity. Trickling streams form tiny rivulets and gather into a glassy pool at the bottom, where the Water Lily and kindred plants luxuriate. On the jutting rocks are alpine plants relieved by the rigid forms of Aloes and Yuccas. The banks of the dell are turfed and planted with shrubs, and near the water's edge the *Primula japonica* is exactly at home and throws up splendid whorls of flowers which cannot be approached by pot culture. This work has been recently done by Mr. Wright and his gardener, who are evidently adepts at this mode of ornamentation.

But besides the water, rocks, shrubs, and plants are "birds, birds everywhere." On the girders of the roof are long rows of brilliant plumage as bright as are the flowers below. In the nest niches of the walls they nestle, and the bushes are alive with their flustering gambols. There are birds of every colour; some rare and of great value, others more familiar, but all revelling in liberty, and their songs and their sportings bespeak them happy. This enclosure may be about 50 or

60 feet square. At the end is their feeding house, into which they pour at stated intervals through openings in the door. In the centre is their dining table, and the well-finished cases of drawers on one side are their larder; and on the other are, I suppose, their bedrooms—rows of separate cages, into which they retire at the proper time. Adjoining is the pigeonry and henery. The aviary and its connections at Osmaston demand more than this passing notice. For extent, cleanliness, and diversified attractions it is capable of affording enjoyment to all fancies and gratification to all tastes. I will now pass to a different and less ornate feature of Osmaston, and note briefly its

**GARDENS.**—I mean by these the kitchen, fruit, and forcing gardens. There are two walled gardens—one being devoted almost entirely to fruit culture, the other to vegetable-growing. There are also strips of ground outside the walls, making the amount devoted to culinary purposes about six acres. The

walls are very strongly built and finished with cast-iron copings which project about 6 inches. But I will first glance at the glass structures. These comprise eighteen houses. Six are devoted to the cultivation of Peaches and other fruits, four to Grapes, an equal number to plants, with erections for Cucumbers, Melons, and general forcing purposes.

My previous remarks have been of rather a glowing nature, but I must now draw a veil. If justice in some departments has demanded of me to write freely and approvingly, truth in another branch compels me to write soberly. Well, there are no Grapes at Osmaston. A fine garden like this without Grapes sounds like a misnomer, but the late owner of Osmaston appears to have thought more of plants than Grapes. He had a rich and valuable collection of plants, and the Vines appear to have been grown only, or principally, for affording shade to the specimen Orchids. These valuable plants have been sold, and in their stead the present owner is hoping to have Grapes.

Fig. 59.—OSMASTON MANOR—THE TERRACE FRONT.

New vineries have been erected, one 18 feet wide and 40 feet long for Black Hamburgs, another of the same dimensions for Muscat of Alexandria, and others of similar size for new varieties. The front walls are built on arches, and the borders are 16 feet in width. They are concreted, and have a sharp fall from the ridge in the centre where the Vines are planted. Drain pipes are laid at 4-foot distances, and are connected with an outfall or catch-water drain running parallel with but below the borders. The beds have 18 inches of drainage, and about 3 feet of soil, composed of good sound turf and a liberal admixture of bones. Provision is, therefore, abundant for taking water out of the borders, and it becomes consequently a primary question of pouring it in. Borders so constructed cannot easily have too much water given them; a fact to which Mr. Booth is fully alive, and he is provided accordingly, for he has only to turn a valve and he can flood them to repletion. It is just possible that more mistakes have been made in making Vine borders too dry than too wet, and it cannot be too well remembered that where a complete system of drainage is effected a proportionately full supply of water must be provided. This is the case here, and good Grapes are as certain to follow as night follows day. Fruit is already foreshadowed, for the Vines which were planted in April of the present year have made canes 22 feet in length after having been three

times stopped. The canes are stout, short-jointed, and well ripened, and will carry good Grapes next year.

The Vines are planted closely, every alternate one being intended to be borne heavily, and subsequently taken out, resting the permanent canes which are about 4 feet apart. Mr. Booth is, however, not quite comfortable as to leaving the dead roots of the nursing Vines in the border lest they should engender fungus, and he is almost inclined to preserve the whole of the Vines, cutting every alternate one down annually, and cropping them on the long-rod system. If he carries out that idea it is probable that he will obtain more and finer fruits than he would secure by any other means. Experience as to the effects of dead roots in Vine borders is needed. Very many growers have planted Vines thickly with the object of removing the surplus canes, and they now hesitate to carry out their object for fear of inducing fungus on the dead roots, and which may spread to those of the permanent Vines. Mr. Peach opines there is no fear of danger on this score, and his extensive travels and careful observation enable him to speak with authority; still, some records of actual practice would be opportune and acceptable. Mr. Booth does not intend to plant any more surplus Vines in his permanent borders, but would prefer to fruit them in pots or tubs, a practice which is recommendable for its safety. His Vine borders now are sur-

faced with manure, and in a short time Ormston will be able to produce Grapes worthy of itself.

Other features of this garden, including the rockery, I will notice in a future number.—J. W.

## NOTES ON VILLA AND SUBURBAN GARDENING.

The summer bedding season may now be considered over, for from the late frosts we have had, together with much wet, the plants have become so shabby that no dressing and cleaning, if ever so particularly done, will revive the general class of bedding plants sufficiently to compensate for the labour bestowed upon them. They should therefore be cleared away as soon as possible, and more especially if it is required to fill the beds with other plants for winter and spring decoration. Spring gardening is particularly suitable for small villa residences, where, generally speaking, all surroundings are of an ornamental character. Besides bulbs there is no lack of inexpensive plants suitable for the purpose. They may not flower at the first outset so satisfactorily, but then as spring weather improves the plants improve also, so that at the least one may calculate upon three months' good bloom in addition to that afforded by the usual summer bedding plants. Surely this is worth trying for; and again, for the beds to be clothed in winter with foliage even without flowers, are better to look upon than the bare earth. Let me name a few plants that should be tried. In the first place, however, the beds should be dug deeply and made level. No manure need be added now, but leave this to be put on at the summer digging.

*Sempervivum californicum*, a perfectly hardy plant, makes capital edgings for all beds, and the *Pyrethrum Golden Feather* is also a good edging plant. For this to stand the winter well the seed should be sown about the middle of July; the plants then produce good foliage by November, and stand the wet without becoming unsightly, as do those from seed sown in March. We have the *Violas* in three colours—blue, white, and yellow, which make either edgings or good showy beds of themselves. Another useful plant is the *Stachys lanata*, which is a dwarf grower with large silvery foliage; it is a good edging plant to either beds or borders. Wallflowers, too, ought to be planted freely. There are some excellent colours from seedlings sown in June which bloom in early spring, and what can be more enjoyable than the perfume of Wallflowers? If necessary the plants are to be had in distinct colours, as dark red and bright yellow. We have *Polyanthuses*, too, in almost endless variety of colours, and they are all sure and profuse bloomers, as are the double and single *Primroses*, which are great favourites, and for spring gardening hold a prominent position. *Golden Thyme*, too, must not be forgotten; it comes a beautiful bright colour in spring, but for summer bedding it loses its colour and becomes green. There are also the red and white *Daisies*, which can be had in any quantity, and will do well particularly in heavy soil. Forget-me-nots, both white and blue, must be included, as well as *Cheiranthus Marshalli*, a dwarf, yellow, dense-flowering plant, and one of the most useful plants for spring decoration. *Alyssum saxatile*, *Arabis alba*, and *Aubrietia grandiflora* are also deservedly admitted into this list.

*Eucnymus radians variegatus*, a dwarf plant with white and green foliage, and perfectly hardy and easy to propagate, is effective in the winter and spring garden; and the Silver-leaved Grass, *Doctylis glomerata elegantissima*, which is quite hardy, makes a good edging for both winter and summer decoration. Next should be mentioned *Phlox subulata* and *subulata alba*, which produce a mass of rose and pure white flowers, having also a dense mass of green foliage. All the plants mentioned in the above list will bear moving and transplanting well.

To the above list may be added several annuals raised from seed, either by sowing in September or later on in cold frames, and planted-out in spring. These consist of *Silene pendula* and *alba*, *Lasthenia californica*, and purple and white *Candy-tuft*. *Nemophilas* are, perhaps, not so safely to be trusted outdoors, as frequently too much wet destroys them, but on dry sandy soils they will withstand both frost and wet tolerably well. To make safe they should either be sown where they can be protected outdoors, or sown in boxes and placed in a frame to be readily put out in the spring. Then there is the *Saponaria calabrica*, one of the most lovely spring-flowering plants known; *Virginian Stock*, *Limonanthus Douglasii*, *Godetias*, *Viscaria*, *Collinsias*, *Calandrinias*, and many others of great beauty. They should be planted thickly, keeping a few in reserve of each sort to fill-up vacancies.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

It is now time to take up the usual root crops. Some sorts, such as Parsnips, are perhaps as well in the ground during winter; but when all the roots, such as Carrots, Parsnips, Beet,

Salsify, Scorzoneria, Turnips, &c., are stored together in a cellar or cool shed it is much more convenient, especially as they are frequently wanted in wet or frosty weather. A good plan is to pack them closely in sand, and all the above-named roots will keep well all through the winter. It is necessary to be very careful at the time of lifting the roots so as to prevent them being bruised; the Beet is quite spoiled if the tap roots are injured in lifting. The roots ought to be placed carefully in a barrow or baskets by hand, and lifted out and stored with the same care.

We take the opportunity of every fine day to earth-up the Celery. It is quite necessary that the leaves and soil be dry when this is done. It is also a good plan to earth-up from both sides of the rows or beds at the same time, for when one man is earthing-up from one side only at a time he sometimes pushes the plants to the opposite side, and this is very injurious. The soil should be placed to the plants carefully, and not be allowed to fall into the centres. A good plan is to tie the leaves lightly together with a strip of matting before earthing-up. Artichokes must now be covered up. The best protecting material are leaves and stable litter: this should be placed round the plants to the depth of a foot or 9 inches, bringing it up close to the leaves, but not so close as to cover the centre of the plants, which should be open. The object of covering is to protect from frost, and this thickness will effectually do so. Spent tan has been recommended as a protective agent for Artichokes, but we have not seen it used.

We have just been able to place the Cauliflower plants in the hand-glasses; it is about two weeks later than they are usually planted out. The remainder of the plants that are not required for the handlights have been pricked-out in boxes; the plants are not over-large, and if sharp frosts do not set in there is nothing lost by late planting. When the plants are strong and are put out early many of the strongest are apt to button: this is not the case with the late plants. Those who planted out their plants two or three weeks ago must pay attention to them during this dull wet weather. All the air possible must be admitted, the soil between the plants be lightly forked over with a pointed stick, and all decaying leaves to be removed. Lettuce plants in frames should also be aired as freely as possible, the soil to be pricked over, and the plants be treated as advised for Cauliflowers.

### PINE HOUSES.

At this period of the year the old growers used to turn over their tan beds, adding either fresh tan or leaves to maintain a bottom heat for the winter; but they generally overdid it. The beds were deep, containing a great body of tan or oak leaves, and either of these when in quantity retained the heat for months. The result used to be that all the active rootlets perished during the winter months from the high temperature at which the roots were kept. At present the fruiting Pines—those intended to be started about the 1st of January—are kept in a temperature of 60° at night. During cold weather the minimum may be 55°. There is very little root action at this period, and about 75° or 80° is as high as the temperature of the bed ought to be; and as the plants are comparatively dry at the roots they will not throw up fruit until the house is started. There is nothing to be gained by unduly exciting suckers and succession Pines at this season. The suckers planted out or potted in August are now well rooted; but they are allowed to rest at present, and will not be hurried until February, when a good watering will be given them. The beds are turned over, and when the plants are fairly started they are potted into their fruiting pots. In the fruiting house there are a number of fruits swelling, and some of them are yet in the early stages only. With these it is necessary to keep the temperature up to 65°, or in mild weather to 70° as a minimum, taking advantage of sun heat to run it up to 85° or more. Fruit that is now ripe or ripening will keep best if it is cut just before it ripens and is removed to a cool room, and it seems to keep in good preservation longest if the room is rather close and dark.

### CUCUMBER HOUSE.

The most difficult period for obtaining Cucumbers is now drawing very near; but if the plants that were put out about the first week in September have not been cropped at all, or at least but very lightly, they will now come into bearing; but a succession of Cucumbers will not be obtained if the plants are not well treated. In the first place, the house must be light and in a position to receive the full benefit of the sun. It must also be well ventilated, for if fresh air is not judiciously admitted daily the plants will soon show the effects of impure air—the leaves will be wanting in substance, and the growths be too weak to produce fruit. In fine weather both front and top ventilators should be open at the same time for a few hours in the middle of the day. The night temperature should be 65°, with a proportionate rise in the daytime. Good substantial loam, to which has been added a fourth part of rotted stable manure, is a capital compost in which to grow the plants. A foot in depth of this is quite sufficient if it is placed over the drainage, and a temperature of 80° or 85° kept up in the bed

from hot-water pipes underneath. Many gardeners fancy a light compost is preferable for Cucumbers, and use large quantities of leaf mould or peat in the soil. But no one could grow better Cucumbers than Mr. Monro of Potter's Bar, his new variety Duke of Edinburgh having been repeatedly admired at the meetings at South Kensington during the winter months. The compost he uses to produce such excellent results is stiff clayey loam from the bottom of a pond. His success seems to arise from keeping up a high temperature—70° at night; and this, which would be thought much too high by some, does not injure the constitution of the plants.

#### PLANT STOVE AND ORCHID HOUSES.

It is now a good time when work is not pressing to look over any plants that may be infested with bug or scale. There is no better way to destroy either of these pests than to use rather warm moderately strong soapy water, and washing carefully by hand, using a soft sponge. Such work must be done very carefully. It is better to clean only one plant thoroughly than to run over half a dozen and leave the axils of leaves and branches full of larvae. The same plants ought to be looked over a week hence, and any bug or scale that may have been missed at the first washing can be removed. As the growth of most plants, Orchids included, have by this time become matured, it is not so dangerous to fumigate. This may be done cautiously as a deterrent to thrips and aphids of sorts. Thrips are the most difficult to destroy; but they cannot do much mischief if fumigation is persisted in.

At this season flowering plants are not very plentiful, and the facility with which Palms, Dracenas, Crotons, and other high-coloured foliage plants can be grown, and which last so very much longer in beauty than flowering plants, causes gardeners to be rather careless in the culture of those plants which last in perfection for a very short time only. Still no plant stove should be without flowering plants at any season; and they are now especially valuable when the "cheerless night of desolation reigns supreme" out of doors. *Aphelandra aurantiaca* and the variety *Roezlii* are exceedingly useful at this season. *Eucharis amazonica*, though it is now very common, cannot be dispensed with. It is now in full flower with us; the flowers are in great abundance, even more so than usual. The reason of this may be that the plants have taken a very long rest since they last flowered. The plants had been kept in a cooler house, and we were enabled to keep them much drier at the roots. Then what a beautiful contrast to the brilliant-coloured and pure white flowers are the handsome clusters of the mauve-coloured bracts of the *Bougainvillea glabra*. This is now in full beauty, and when the flowering period is over it will be removed to the greenhouse to rest, preparatory to a fresh start in March next year. *Allamanda Schottii* is also very nicely in flower. The plant has been encouraged to make a quantity of young wood since August, and the young growths are flowering freely. *Ixoras* can also be had very finely in flower at this season, or indeed at any time. The trusses of flowers are formed shortly after the growth is made, and if the minimum temperature is kept up at 65°, with a little bottom heat for the plants, the flowers are perfected even at midwinter. Other flowering plants may be named which may be induced to flower at this time, even if this is not the usual time for their flowering.

Amongst Orchids the *Calanthes* are now in flower, and these beautiful plants are so easily grown that no collection of stove plants should be without them. The most useful plants for us are those that are grown in small pots. Three bulbs are planted in 5-inch pots, the staple material being rich turfy loam, a little rotted manure and sand is added. We have pots this year in which the bulbs produced almost, if not quite, weigh as much as the compost in which they are grown. During the growing season they require plenty of water, but after flowering no more water is required until the bulbs start into growth late in February or early in March, when they are shaken out of the pots and repotted. Some persons pot a score or more bulbs in large pans, which is a matter of taste, or as better meeting the requirements of the owner.

*Dendrobium nobile* has been placed in heat, so that the plants may be in flower about Christmas. This useful and easily grown Orchid will succeed either in a high or low temperature; but being a native of China it does not require the heat of an East India house, and during the winter a temperature of 55° is sufficiently high. Those plants that are being kept back for late flowering are placed in the greenhouse, and they do not receive any water unless the growths show signs of shrivelling, when water is applied to prevent this. *Dendrobiums* such as *D. Farmeri*, *D. densiflorum*, *D. thyrsiflorum*, and others of this section having made their growth in the East India house, are now removed to a house where the minimum temperature ranges from 50° to 55°. These are also kept as dry at the roots as possible without allowing the growths to shrink in the least. In all houses where a high night temperature is kept up it is quite necessary to sprinkle water on the stages and paths to obtain atmospheric moisture; but it is not desirable to syringe

the plants after this unless an isolated specimen should become infested with red spider, when the plant should be laid on its side and thoroughly syringed. Let air be admitted daily and freely on all favourable occasions. Many of the best Orchid growers admit air night and day both in the summer and winter months.—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

JERSEY (Chrysanthemums).—November 10th. Major Howell, Spring Grove, St. Lawrence, Hon. Sec.

LOUGHBOROUGH.—November 16th and 16th. Mr. W. Pallett, 55, Baxtergate, Sec.

NORTHAMPTON (Chrysanthemums).—November 16th and 17th. Mr. N. Gutteridge, 61, Denmark Road Sec.

#### TRADE CATALOGUES RECEIVED.

Ewing & Co., Eaton and Cringleford, Norwich.—*Catalogue of Roses and General Nursery Catalogue.*

Ch. Huber & Cie. à Hyères (var) France.—*General Autumn and Spring Catalogue of Seeds and Plants.*

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

POTTING SOIL (T. C.).—The mixture of cow dung and cement, which is now crumbly, would do for mixing with other materials to form a potting compost for plants not objecting to calcareous matter.

FRUIT TREES IN POTS (T. H. C.).—Pearson's "Hints on Orchard Houses" will aid you. You can have it free by post if you enclose nineteen postage stamps.

KITCHEN GARDEN PATHS (E. B.).—If made of the following composition they are always dry and free from weeds:—Take two parts of very dry lime rubbish, and one part coal ashes, also very dry, and both sifted fine. In a dry place, on a dry day, mix them, and leave a hole in the middle of the heap as bricklayers do when making mortar. Into this pour boiling hot coal tar, mix, and when as stiff as mortar put it 8 inches thick where the walk is to be. The ground should be dry and beaten smooth. Sprinkle over it coarse sand. When cold pass a light roller over it, and in a few days the walk will be solid and waterproof.

SCARLET PRIMULAS (A. L. M.).—The flowers are bright and good, but they should have been packed in damp moss to preserve them unwithered.

FRUITS FOR HOT SOUTH WALL (C. W. F.).—You cannot have more worthy fruits than Peaches, Nectarines, and Apricots.

PEARS (T. M., Sarbiton).—They must have been very dissimilar for us to conclude they were six varieties. Are not more than one variety grafted on the stock? Send us other specimens, and put a note with them to recall our attention.

BACK NUMBERS (E. Webb).—If you enclose twenty-one postage stamps, restate the numbers you need, and send your address, they will be posted to you.

JERSEY HORTICULTURAL SOCIETY'S RULE.—"Audi Alteram Partem" informs us that the rule 8 only applies to plants grown in pots, and he encloses a printed form which Mr. D. De Faye signed; that form has this clause:—"I hereby certify that all the objects above described (fruits) and contained on the other side are of my growth." This disqualifies Mr. De Faye's specimens.

MEALY BUG ON CAMELLIAS (B.).—The spray sent is slightly infested with both mealy bug and white scale. Dissolve 8 oz. of soft soap in a gallon of water, and brush the solution carefully round the buds with a hard tooth-brush, using also a pointed stick to loosen the scale. The solution should be used at a temperature of 100°.

OVAL BED (Ignoramus).—Mark out two circles to form the ends of the oval of the size you need; then fix on one side a peg exactly opposite the middle of the space between the two circles, and at such a distance as that with a piece of string fixed to the peg and a nail at the other end of the string you can mark the side of the oval. Then move the peg to the same position on the opposite side, and with the same length of string mark the other side of the oval.

GOOSEBERRIES.—"If Mr. W. Taylor, Longleaf, will grow White Warrington Gooseberries, he will find them exactly the same in everything but colour as the old Red Warrington.—Yours truly, J. MACKENZIE, M.D."

PEAR LEAVES BRONZE-COLOURED (S. F.).—The roots have descended into the cold clay subsoil, and do not supply sufficient sap either to the leaves or fruit, consequently the leaves are discoloured and the fruit cracks. The descending roots must be cut away, some of the clay subsoil burned and mixed with the soil of the surface, a little well-decayed manure added, and the surface kept mulched to induce the roots to remain there.

HOSE-IN-HOSE POLYANTHUS (Old-fashioned Folks).—You are not old-fashioned gardeners, or you would know that the "Hose-in-Hose" is one

growing from the centre of another, and is one of the very oldest of the Polyanthus varieties.

**BEDDING DELPHINIUM.**—"M. H." says "I have used the common blue Larkspur Delphinium consolida as a bedding plant. With care and pegging-down it proves a very effectual plant to those of limited means."

**BUYING GARRISON (C. Princep).**—You are quite right in recommending the carcasses of animals to be sold, and less offensive manures to be purchased. Reducing them by decomposition, sulphuric acid, &c., is a process very few amateurs or gardeners would endorse.

**VINE LEAVES BECOMING YELLOW PREMATURELY (J. A.).**—The Vine seems to have received a check in some way. You fancy the roots cannot get into an outside border; if so, perhaps the fault is to be found in insufficient root action. You should examine the roots; the leaves sent are not diseased.

**FRUIT TREES FOR POULTRY RUN (Subscriber).**—The wall will not practically be of use, as from the standard trees you propose planting it would be shaded by them to an extent that no satisfactory results could be expected; and the fowls, were you to plant the trees so as not to shade the wall, would peck at the fruit they would produce fully half the height of a 6-foot wall, and the wall facing north is not suitable for the better kinds, but is only available for Morillo Cherries. We should have two rows of trees lengthwise of the plot, 15 feet from each side and 80 feet between the rows, and plant in the rows 30 feet apart, which will give a dozen trees, and these may be—*Pears*: Jargonelle, Marie Louise, and Bourré Dial. *Plums*: Oullins Golden Gage, Prince Englebert, and Victoria, with Onatser or Crittenden Damsen. *Apples*: Blenheim Orange, Dutch Mignonne, Lady Henniker, Cox's Pomona, and Tower of Glamis. If you level the ground at all trench it and throw it level as the work proceeds, and manure on the surface, sowing with grass seed in April.

**KITCHEN GARDEN ARRANGEMENTS (Idem).**—It will answer as you propose, but the fruit trees must not be on the side of the wall next the wall, but on the opposite one, and about 3 feet from it. Pyramid or espalier Pears and Apples would succeed admirably on the dwarfing stock, and the wall could be utilised for fruit trees. The Asparagus is quite old enough for transplanting. It may be moved now or in March.

**STORING PEARS, APPLES, AND POTATOES (Idem).**—The cellar will be suitable, only the pipes would probably give out too much heat, the fruit ripening too quickly, and the Potatoes being started into growth prematurely; but this you may obviate by enclosing the pipes in brickwork, with iron sliding ventilators to let out or confine the heat as may be required. The cooler the room, provided that frost be excluded, the better. Shelves of planed deal laths with spaces of about an inch between each will answer perfectly.

**HEATING SMALL GREENHOUSE (J. E.).**—You will see in our advertising columns an apparatus or stove which consumes oil, and it may be suitable for your purpose, but with hot water in a sufficient quantity of piping we do not see the necessity of an auxiliary.

**POTTING LILIUM AURATUM TO FLOWER IN AUGUST (Idem).**—Pot it 6 bulbs now, and keep the soil in a rather dry state through the winter and from frost. In spring place outdoors with the pots plunged to the rim in a sheltered position, and they will flower at the time you require, removing under glass if they are too backward, which we hardly think they will.

**POTTING GERANIUM AND PELARGONIUM CUTTINGS (R. H. T.).**—We can only account for the cuttings going off from being kept too moist. The plants require to be lifted carefully, preserving the roots with some soil adhering, and pot singly in 8-inch pots in moderately moist soil, watering sparingly until fresh growth is made, by which you may know the plants are rooting freely.

**VINES INFESTED WITH MEALY BUG (Mealy Bug).**—You must thoroughly cleanse the house as well as the Vines. The woodwork ought to be thoroughly cleaned with a brush and soft soap and water, the walls whitewashed, and the glass washed with clear water; but preparatory to this we should syringe every part of the house with the ammoniacal liquor of the gasworks diluted with six times its volume of water, and after having stripped the Vines of all the loose bark dress them with a composition formed of very finely powdered thoroughly-dried clay with an equal quantity by measure of gas or coal tar, and bring it into a proper consistency for using with a brush by adding eight times the quantity of the tar and clay combined of water at a temperature of 140°, so that to make nine quarts of composition you will require a pint each of powdered clay and gas tar, with a gallon of soft water. Apply with a brush, reaching every angle, crack, or crevice, taking care not to injure the eyes. It would be well to finish with twice painting the woodwork, and not being sparing of turpentine, which with the house closed afterwards will from its volatility fill the house, and which no existing bug can breathe and live. The border inside we should make quite yellow by sprinkling over it guano, and top-dress with clear compost. Nothing is better for syringing the Vines after starting than clear rain water, and if you continue this until the Grapes change colour the bug will not make such headway during the ripening as to cause any damage to the Grapes. We also recommend sprinkling the border over with guano and wash-in with water about every fortnight. It is beneficial to the Vines and good against mealy bug. The house must be clear of plants during the cleansing.

**SOLUTION FOR PLANTS INFESTED WITH MEALY BUG (Idem).**—Make a solution of soft soap 1 lb. to a gallon of water, and add a wineglassful of spirits of turpentine, and apply at a temperature of 120° with a brush to the stems, and to the leaves with a sponge. It must be used upon plants with smooth leaves only, as Crotons, Dracenas, Stephanotis, and Gardenias; and not those with soft hairy leaves, as Conocliniums, Thyracanthus, and Ferns. Mix the solution thoroughly.

**TREATMENT OF MARSHAL NIEL ROSE IN GREENHOUSE (A Constant Reader).**—The shoots being now the length you desire them you should stop them, and induce the ripening of the wood by keeping rather dry at the roots. The temperature of 45°, if from fire heat, is too high, as it will induce the plant to continue in growth, but that you may check by keeping dry. Do not prune more than to remove any soft unripe wood, and from every eye of the firm ripe wood you may calculate upon having a flowering shoot. The temperature is not, however, too high for Chinese Primroses (*Primula sinensis*). The flower stems as they rise should be removed until Christmas, as you require the plants to flower in March. Keep the plants near the glass, and carefully watered, encouraging after Christmas with freer watering, and giving weak liquid manure at every alternate watering.

**CREEPER FOR NORTH WALL (F. J.).**—The Virginian and Veitch's Creeper (*Ampelopsis Veitchii*) would answer, and are handsome, especially in autumn. The finest species, however, for a north wall are the *lyvia*, and for a wall of the height of 9 to 10 feet we should plant the smaller-leaved kinds, as *Hedera Donnelliana* and *H. taurica* of the green-leaved, and *H. elegantissima* and

*H. tricolor* of the variegated sorts, the green and variegated-leaved kinds together having a pretty effect.

**GRAFTING APPLES ON PEAR STOCKS (Idem).**—It has been done, but the grafts only lived a short time, and the practice is not therefore desirable. The trees so grafted never, that we know, lived long enough to produce fruit. Graft the stocks with Pears if you wish to change the kinds.

**PLANTS NOT THRIVING IN CONSERVATORY (J. R. S.).**—The shading with perforated zinc is sufficient to account for the plants doing so indifferently; and though it might not make the house too gloomy when the Camellias were making fresh growth, they, from being placed outdoors after the growth was made and the buds set in a vinery, would, unless hardened-off, receive such a check as to cause the buds to fall now, the check being given at an earlier stage. There is no need to remove Camellias from a conservatory at any time, and since we abandoned placing them in heat to make growth and form buds, with the resting outdoors, we have not had a noticeable dropping of buds. The chilling consequent upon the changing of plants from various positions cannot act otherwise than prejudicially, as shown by the casting of their flower buds. The consumption of gas in the house on party nights will not do the plants any good, but if only practised occasionally, and for a short period each time, would not materially injure them, but it is an evil, and often highly prejudicial from an escape of gas, and would be better replaced by oil lamps. In the green paint we see no occasion to look for injury to the plants, as after it is thoroughly dry there could not be given out any injurious vapour. The shading and gas, in our opinion, are the sources of the evils. A shading of tiffany inside put up early in April and removed at the close of September would give you all the shade required; and if there is an objection to the tiffany shading, brush the inside of the glass with a wash of whiting brought to the consistency of limewash by adding skim milk. It may be washed off at any time, or renewed if necessary.

**GRAPEES FOR LATE VINERY (W. G. C.).**—Either you must decide upon the late kinds, or those which are classed as late, and which will hang in good condition to Christmas. There is, however, generally such a glut of Grapes in autumn from not keeping and other circumstances, that we do not advise growing kinds that will not keep until March or later. Kinds of this description are Alicante, Lady Downe's Seedling, and Mrs. Pince, with Gros Guillaume, which, however, is a shy bearer in most places on its own roots, but on the Muscat of Alexandria stock it is found to do better, and is one of the finest of late Grapes. Those we recommend, but they would not succeed upon the Black Hamburg stock, and we should root them all out and plant with the late kinds. Madresfield Court is fine in the autumn, but does not hang long, and Black Muscat colours so badly as always to stand at a disadvantage with well-coloured kinds as Alicante and Lady Downe's.

**GREENHOUSE GRAPEES SHOWN AS OUTDOOR GRAPEES.**—"A person exhibits Grapes grown in a greenhouse as outdoor Grapes, and tries to satisfy the Committee that they are grown out of doors as the lights have been open for some time. How should the Committee act in such a case?" Refuse to allow them to compete as outdoor Grapes, or if a prize has been awarded refuse to pay it.

**NAMES OF FRUITS (J. Green).**—The large one is *Mère de Ménage*, the other we do not know. (*Connaught Subscriber*).—*Pears*: 1, Gansell's Bergamot; the others are not known. *Apple*: 2, Golden Basset. (*John Jeffries & Sons*).—1, Summer Strawberry; 2, Adams' Pearmain. (*A. H. M.*).—Nectarine Pear. (*Onward*).—We do not know the Apple. (*Mrs. J. C. Edwards*).—*Pears*: 1, Fondante du Comice; 2, Duncrore; 3, Marie Louise. *Apples*: 1, Scarlet Nonpareil; 2, Braddick's Nonpareil; 3, Farry's Pearmain. (*W. G. C.*).—*Pears*: 1, Bourré Bance; 2, Ne Plus Meuris. The Apples are not known. (*Beest Hill*).—A, quite rotten; B, Thompson's; C, Kerry Pippin; D, Collini; E, not known. (*Somerset*).—1, Doyenné d'Alençon; 2, Verulam; 3, Easter Bourré; 4, Winter Nellis; 5, Bourré d'Arenberg; 6, Broomepark. (*Stuart and Meiss*).—17, Collini; 24, Damsel's Seedling; 4, Norfolk Seedling; 11, Hawthornden; 2, Manx Codlin; 5, Yorkshire Greening. (*A Subscriber, Fife*).—*Grapes*: 1, Black Alicante; 2, Morocco Prince. (*J. Chappell, Hull*).—Both are Emperor Alexander. The larger one marked No. 2 may be Grand Duke Constantine, which is very similar to Emperor Alexander, but considerably later in ripening, and keeps longer. (*G. T. Hall*).—1, Verulam; 2 and 3, undoubtedly Scarlet Nonpareil; 4, not Duke of Devonshire, not known; 5, Golden Basset; 6, Lewis's Incomparable. (*Lyndhurst*).—1, Blenheim Pippin; 2, Franklin's Golden Pippin; 3, Cooke Pippin; 4, Court Pendu Plat; 5, Reineette du Canada.

**NAMES OF PLANTS (S.).**—Specimen too immature to name. It looks like a seedling form of the common Male Fern, *Lastrea Filix-mas*. (*V. B. Down*).—The "plant" is *Sedum Sieboldi*. The Ferns are without numbers. (*G. S.*).—1, perhaps *Aster multiflorus*; 2, a *Lyperis*, probably *L. crassicaulis*. (*A Subscriber*).—1, *Centaurea montana*; 2, *Clematis Flammula*; 3, an *Anemone*, but we cannot determine the species from the insufficient material sent. (*S. B. and J. B. S.*).—We cannot identify plants by their leaves.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### CHAPTER V.—BASCHURCH.

THE poultry establishment at Little Ness has only just attained full swing, for Mr. Darby had to leave Bridgnorth and pitch his camp at Baschurch after rather short notice, consequently when he came the runs were not ready, the houses were not built, and nothing was in working order. This threw him back a good deal last season; but now the warm corners have been found, and the sheltered runs discovered, and the establishment is in full operation once more. Even now Mr. Darby has much to make way against, for the place is exposed, and cold winds blow over it. The soil, too, does not seem over-advantageous for rearing chickens, the birds taking a long time to mature and to moult in the autumn, and the country round teems with foxes, which have made several inroads and carried off valuable birds.

Little Ness is famous for prize-bred live stock of all kinds, for on entering the yard we find a pack of useful fox terriers of the

most approved strains, living in a set of substantial kennels; and there are, too, "Royal" winners in the stable, and silver-cup foals in the fields, and highly-bred cattle of all kinds in the stalls, while a first-prize Crystal Palace cat is found in the harness-room. But we must turn to the poultry yards.

The farmyard here is what a farmyard should be—long rows of shedding for feeding cattle, barns and granaries of huge dimensions, and such stacks! No little round dumping affairs, or brick-loaf-looking erections, but rows of stacks like miniature mountains, covering we dare not venture to say how much space, and all raised up on iron stands; consequently the dry runs under them are quite grand, and chickens should really do wonders. But it was October when we were there, and we found this fine farmyard given up to a miscellaneous collection of birds, consisting principally of Buff Cochins, Spanish, and Dorking hens. These birds should moult out well here and come in useful, for they had everything in their favour.

Coming from this stackyard we pass through a little gate and enter the poultry field where the long row of runs are. We can safely say we never saw such a grand row of poultry pens. They were built regardless of cost, and we will try to describe them. They comprise twelve or fourteen houses, built in one long row. The whole range is thatched, the roof being very deep and thick, which keeps the temperature perfect. Each house is about 16 feet square, and is fitted with a large dust bath and all necessary poultry furniture. Each house has a huge run laid down in grass and planted with shrubs. The pens are boarded up to about 4 feet, and then have 6 feet of wire netting, while there is at the bottom of each yard a small door to let the inmates of the pen into the field at any time. Iron guttering runs along the whole roof, and each door has spring hinges, in fact it is the most complete range of houses we ever saw. It is impossible to give any fair conception of them on paper.

But to pass to the inmates. In No. 1 we found half a dozen Buff cocks moulting well, one or two especially of great promise. In the next we found a lot of Silkies, many of them perfect and fit to win. In the third was a grand old coloured Dorking hero coming on well in his solitary retirement. In the next was a fine White-crested Poland cock also doing well. In the fifth were half a dozen Black Cochins, one of which while we were there was sent off to Edenbridge Show, and brought home the first-prize card. In the next were Cochins, and here we paused some time, for many of them were of great merit. Two Buffs and a White were immensely taken with, and shall expect to hear of their doing great things. In the seventh pen was a beautiful old Spanish cock, good in face and promising well. In the next were White-Crested Poland chickens, one of them the grand pullet that so much has been said about. We found adult Polish in the next, and so on throughout the whole range, while Pigeons flew about everywhere, and built their nests in any of the houses at pleasure.

From this field we passed on to a very pretty spot. It was to our mind the nicest of the runs, for it was sheltered on all sides, and had a little pool of water close to it. The grass here was kept short and well rolled, for it was, as well, the lawn tennis ground. Here were the Cochins cockerels, and a very good lot they were. Among them we saw the Aylesbury and Oswestry winning Buffs and the Blacks which won at Aylesbury, Edenbridge, Alexandra Palace, &c. The Palace cup cockerel was one of the best Blacks we ever saw, and we prophesy a good career for him. All the birds were in beautiful condition and in perfect bloom.

We had now seen all the birds which were up at Little Ness, and walked on to Vale Wood, a charming spot about a mile off, covered with fine oaks and beeches, under which grass and ferns grew in wild luxuriance. On our way we passed a paddock with a big poultry house in a corner, and here were cockerels of all ages—Dorkings, Cochins, and Spaniards—all living together in perfect harmony, and many of them very promising; in fact, we believe since we saw them one or two have come to the front in the prize lists.

It is at Vale Wood that the foxes trouble Mr. Darby so much, but we found here a most ingenious contrivance of Martin's the manager: a space 100 yards square had been cleared round the poultry houses, in each corner a strong post had been sunk into the ground, and a stout wire strained from post to post. In each corner was a dog kennel, and each dog had a chain which was fastened to the wire by a ring. By this means each dog had to guard 100 yards, and he could run up and down this space at pleasure, so keeping off all intruders, whether two-legged or four-legged, from this square which contained the houses and roosting sheds.

We found here Coloured Dorking hens, rose-combed and single—great-bodied birds, and most of them well through the moult. We were shown many a champion here, and very grand they looked. Here, too, were troops of Game Bantams, a grand rose-combed Dorking cock, some splendid White Dorking hens, a good Coloured Dorking pullet or two, besides a miscellaneous collection of young growing stock which had nothing to do but

to grow, basking lazily in the thick bracken, and picking about under those fine forest trees.

Opposite the manager's house was a little paddock with a nice thatched shed in the corner. Here were the Cochins pullets—Buffs, Blacks, and Whites. The former were very good, two or three of them being in colour equal to any we have seen this season, and we since have learned that one of them was the pullet so much admired at the Aston Park Show. These pullets, especially the Buffs and Blacks, must come to the front sooner or later.

As we walked back we passed some cottages where a nice Game cock or two were out at walk, and when we once more reached Little Ness we went to the poultry room, where in small straw-littered pens we found various old cocks in process of changing their summer clothing. We took a great fancy to a Black cock, and a White bird was coming out a good colour, and will make a winner we should think. We only had to see the Spanish now, and then we had finished the whole yard. These we found in a large covered-in manure-yard, and a capital collection they seemed to be, nearly fifty of them, hens, pullets, and cockerels. We thought the place warm and singularly adapted for bringing out their faces and developing their combs.

This, then, was the Baschurch establishment. We have had to go over it rapidly, as it is large and the number of birds great; but we have given, we hope, some idea of the place, and leave it wishing Mr. Darby every success, for he is a genuine fancier and an honest one, and well deserves every card his birds bring home.—W.

### ALEXANDRA PALACE POULTRY SHOW.

YOUR contributor says that Mr. Billett had the birds speedily packed at the close of the Show. We are at a loss to know whence the information was derived, for Mr. Billett had nothing whatever to do with repacking the birds, which was done by the Secretaries and a numerous staff of assistants; and with about a dozen exceptions every bird was in the hands of the railway people before four o'clock on Friday morning. We may add that Mr. Billett executed his contract for the pens in an eminently satisfactory manner.

The next misstatement in your report is that the birds while at the Show were fed by the Messrs. Spratt & Co. On the contrary, the birds were fed and attended to during the Show by Mr. H. Brown and several feeders; and with the exception of two or three cwt. of Spratt's meal the whole of the food stuff was supplied by Mr. R. Pratt.

We cannot help remarking also that in the report on the Pigeon Show your reporter should have altogether ignored such important varieties as Carriers, Pouters, and Dragons, which all had large and well-filled classes, and we think were deserving of some notice.—W. J. NICHOLS, P. H. JONES, *Secs.*

[The only reason that no comments on the Carriers, Pouters, and Dragons were published is, that the report on them was confided to a gentleman who did not send his notes.—EDS.]

### MALAYS.

IN your report of Alexandra Palace Show I see you have favoured the Malay fancy with fuller notes on this class than is generally the case with other papers that devote space for poultry matters. I am led to believe, like more of the fancy, that Malays are a breed which few know how to describe, not knowing their true character. You specially name the Green colour, as if they ought to be either White or Pile. Now as there is no standard colour for Malay hens, I maintain that colour should not have too much weight, but style and size, and the neck or hackle coat of feathers, with plenty of lag.—R. HAWKINS, *Seaham.*

### THE FRENCH CLASSES.

IT shows the increasing popularity of these breeds, especially of the Houdans, that in a season so confessedly bad for chickens such birds could have been brought together as at the Alexandra Palace Show; and those who like myself have watched the progress of the breeders must admire the energy and intelligence by which they have effected so vast an improvement—an improvement which would, I believe, make our neighbours open their eyes as wide as did the rose-growers when they saw the magnificent pot roses at the Great International Exhibition. Not merely the size, but the quality of the birds was wonderful. But must not some people give great latitude to the interpretation of chickens? I saw pullets with scaly legs, and in all my breeding experience I have never met with that in birds under twelve months.

Of the four classes I think the Houdan cockerels were the weakest in point of quality, and there was hardly a bird in it with which some fault might not be found. The cup bird, which belonged to my friend Mr. Dring, was a very large fine bird, good in colour, but with too scanty a crest; legs light in colour,



but the comb was not what is now recognised as the true Houdan comb as distinguished from the Crève. Second-prize bird was worthy of the position he took; but he had a fine crest, and legs were very light. 627 a fine bird, but he had too small a comb and wattles to suit my ideas of a thoroughly good bird. 626 a good bird, but too dark. 630 would have been a fine bird but for his having a squirrel tail, which made him look as if the sickle feathers had been pulled out and stuck in again. 610 a good bird. 617 a large bird, very dark, bad shape, and with an exaggerated leaf comb. 618 good, but too small.

The pullets were a very fine class, and when one looks at the prize list and sees that out of thirty-four entries nineteen, or more than one-half, were noticed, it is evident the Judges thought so too. The first-prize bird (651) did Mr. Wood great credit; she had a very fine crest, was good in colour and shape—quite a model of what a Houdan ought to be. The second (635, Mr. Dring) was a very fine bird; in fact, he had four there altogether which were excellent, and I am not sure but I should have preferred the highly commended bird (684) to that which obtained second. The third was good, and so was 553, fourth prize (Mr. Quibell). Amongst the highly commended birds I like 642 (Mr. Hibbert) quite as well as some of those which obtained prizes; but I can quite understand the difficulties the Judges must have experienced, and I thought to myself how very little I should have cared to have judged such a class.

The Crève-Cœurs were remarkable not less for their excellence, but also for the manner in which, in racing parlance, the favourites were nowhere, and outsiders came to the front. Messrs. Dring, Outlack, Crabtree, Wood, and Ewbank were distinguished by such new exhibitors as the Rev. J. G. B. Knight, Mr. Upsher, and Mr. D. Faye, and unquestionably their birds were very fine. The first and second-prize cockerels were grand birds, brilliant in colour, rich glossy black, rather too upright in comb. 676, third prize (Mr. Malden), was a fine bird, but lacking the brilliancy of colour of the first and second. 685 (Mr. Dring) was a good bird—true Crève-looking bird, and I could quite imagine his owner thinking he could not be beaten before he brought him up.

Pullets were a splendid lot, the first-and-cup bird in all respects first-rate. The second, a Jersey bird, was very nearly equal to it, and the size was something wonderful. I liked 696 (Mr. Dring) very much, a well-shaped fine-coloured bird. Mr. Knight, who showed cockerels so well, was nowhere in pullets, only coming in for commendation for 685. 686 was curious, a perfect White Crève, but I should hardly think desirable, certainly not for appearance, and I question if it would not betray a delicacy of constitution. Altogether the Show was a very wonderful one. What may we not expect at the Crystal Palace, when to young birds are added old birds also? "May we be there to see."—D., Deal.

### OXFORD POULTRY SHOW.

THE whole Show was a very great success, and reflects the highest credit on the Hon. Secretary Mr. King. We had feared the Alexandra meeting, so nearly clashing with it, would damage the entries here, but the poultry world has realised that the Oxford Poultry Show is firmly established. When we think that the Alexandra Palace was on the single-bird system, that its Pigeon schedule was one of the most comprehensive ever issued, that the Palace itself had insinuating powers, we quite come to the conclusion that the Oxford people must have thoroughly won the confidence of exhibitors to have the grand display they had last week. The Judges were—for poultry, Messrs. Teebay and Hewitt, the former gentleman taking the Game, Hamburgs, French, Game Bantams, Variety classes, and some of the Sale classes, while the latter judged the remainder; Messrs. P. H. Jones and Esquilant taking the Pigeons together. We thought the judging in most classes very good, and though in many instances the Alexandra awards were much altered, still we must remember that the birds were here in pairs, and many of the champion single birds of the Palace had here not nearly worthy mates enough to let them occupy the old positions. The feeding was good, and every bird had a sod of grass given it in the morning, and other green food in the afternoon. The pens were Billett's, and were well covered with chaff, and had as well a little grit. Every pen of birds by 12.30 on the Friday was in the railways' hands, except in one instance where a mistake arose about a duplicate number, but this we believe was speedily set right.

The sales were numerous, and the new tender plan was found to answer admirably. Among the most important sales we may mention that the cup Houdans realised £10 10s.; the first-prize White Pouter hen, £18; the cup Silver-spangled Hamburgs, £7; the first-prize Black Bantams, £30; the winning Gold Pheasants, £5 5s.; the third-prize Orpingtons, £6 6s.; a highly commended Polish cockerel, £6 15s.; second-prize Carolinas, £4 4s.; Mr. Copplestone's very highly commended Rouens, £5 5s.; the first-prize Black Cochins, £5 5s., and very many other pens at good prices. We must mention, too, the great

excellence of the local specimens; in many cases they were admirable, and this shows us in a most marked way that the Society is bearing fruit, for the great number of new county names and improvement in their exhibits is well worthy of comment.

The catalogues, which were ready when the Show opened with the awards in the margin, were nicely prepared. *Dorkings* were first, and a grand collection they were of sixty-five pens. In the Coloured, as in many other classes, we found several good birds but no very perfect pair; for instance, the cup pullet was a beauty, so was the third, and so was Mr. Walker's; while in cockerels the second, fourth, and highly commended pens of Messrs. Burnell and Hamilton were very good birds. On the whole, however, we thought the judging good, though we confess all through the Show we had a fancy for Mr. Burnell's cockerel in pen 8. Silvers were splendid, and here the champion cup went for Dorkings, and quite deservedly, as it should have done, too, in 1874. This year the cup pen, though very beautiful and perfect, was not to our mind quite equal to last year's first-prize pen of Silvers. Second were a nice pen, and about right; while the third were very young but of great promise. We thought it an admirable class and well judged. Whites were good, but we liked the second-prize pen best, for here the cockerel was equal to or better than the winner, and the pullet certainly superior. Third were a fair pair; the cockerel looked smart and fresh. In Cuckoos the winners were good. We note a great improvement in the tails of this breed, but not much extra size. The winners were well placed, the second going to a very nice pen of single-combed birds.

*Spanish* were a large class, but the quality disappointing. On the whole the winners seemed well placed. The cockerel in the second-prize pen was immense in face, but coarse. The pullets in 69 (Wilkinson) and 72 (Walker) were very nice and promising birds.

Buff *Cochins* were very fine; the prize pens and the second very highly commended pens were very even. We almost think we should have placed Mrs. Tindal first and second, as Mrs. Allsopp's second-prize pen had a very old and poor pullet—in fact, this lady must have penned her pullets, we should say, wrongly, for her best pullet was with her worst cockerel. The third-prize pen contained a lovely pullet—the same bird, we believe, that we noticed in our Alexandra report of last week with a young but soundly-coloured cockerel. Blacks were few and good. The second-prize pen must have closely pressed the winners, as it contained the best cockerel we have yet seen in Blacks for colour, comb, and shape. The third were right. 115 contained the Palace Black pullet, and a poor bird she is for a show specimen. Whites were a large class, and there were here many individual birds good, but with faulty companions. The winning cockerel was red on his wings, and the second-prize pullet looked as old as the hills, while the third-prize lady was almost stockless. Taking them as they were, our choice was for Mr. Faulkner's pen in spite of their very heavy hooks. Partridges were grand, and the winners well placed.

*Brahmas* were good, and the judging very nearly perfect in the Darks; for though something could be said, perhaps, against every pen, still they were well selected. Mrs. Baillie-Hamilton's bird has a nasty tumour on his breast, or else as a cockerel he was, perhaps, the best. After the winners we liked Mr. Bircho's pen and the pullet in 144 (Bennett). Lights were capital, but here, too, we saw several grand birds, but no very splendid pairs. Perhaps we liked the fourth-prize pen as well as any, but here the cockerel had a hideous comb. The second were stylish chickens, the same pair as won first at Edenbridge. 175 (Saville) had a nice pullet, so had 186 (Petter), while 178 (Haines) had a very fair cockerel; but the class was a difficult one to judge on account of the non-matching of the birds in their pens—in fact, the whole Show was remarkable for this.

*Game* were on the single-bird system, but the quality was disappointing though the numbers were good. Black Red cockerels were not a grand lot, and the only bird of any style or promise was the third, which will in time make a good one. Pullets were better; Mr. Dutton's pens were as good as any, but all the birds seemed backward. In Brown Red cockerels the winner was well to the front. It was a much better class, and the noticed chickens were all birds of good stamp and style. The Brown Red pullets, too, were a pretty lot of birds, and the winners nicely selected; we know the Judge took an immense deal of trouble over them. In the other two classes Duckwings carried off most of the prizes. We liked the cup bird immensely, and thought he merited his place, though we should have placed third over the second-prize pen. In pullets the winner was a good, and the second a fair Duckwing, third going to a pretty Pile. 309 (Forssyth) a nice Duckwing pullet. We thought the local Game entries exceedingly good and the birds well shown—much above the local average.

*Hamburgs* were wonderfully good, and the entries numerous. Golden-pencils made a fine class. We almost liked the second pen best, the cup cockerel somehow not being quite our fancy, though a fine chicken. Third were fair birds. Mr. Cresswell's

pen (819) were well marked, and 822 (Clayton) had a capital pullet. Silver-pencils were fair, and the winners properly placed. 849 (Hansor) a smart cockerel. Gold-spangles were a fine lot, and here we understand was a complete *bouleversement* of the Alexandra winners. The prize birds were good, and the cockerel in Messrs. Duckworth's pen and Mr. Long's pullet certainly were capital specimens. Silver-spangles were a beautiful lot, and winning difficult. We liked the second-prize pen as well as any, though the cockerel here was not worthy of his pullet. The third pair were good, and deserved their place easily. 882 (Hallam) were good, and 892 (Beldon) contained a very smart pullet. Blacks were very fine. The winning pair splendid in bloom and points, and properly the cup-winners. The second-prize cockerel was too high in tail, but his pullet capital; third, too, was a nice pen. 897 (Hoyle) had a smart cockerel, and 402 (Long) a finely-coloured pullet.

*Polands* were admirable. Blacks came to the front wall. The quality was very even, and it must have been almost a toss-up which of the three prize pens was to be first. Mr. Fearnley's cockerel was perhaps the best cockerel in the class, but his pullet very poor in crest. In the other class Mr. Adkin's Silvers were charming, being really good in crests and markings. These won first and third, a fine pen of Golds taking the intervening place. Mr. Beldon's pen was a grand pair, and Mr. Galloway's pen (424) were of great promise, and soon found a new home for £3 8s.

*Houdans* were a grand lot, and the judging exceedingly difficult, for the type of birds in so many pens was very different. We thought the best pen won, the crests being splendid, and the markings of each bird matching well; second and third were good pens. The fourth we did not like; they had nothing in common, and we infinitely preferred 448 (Dring), 459 (Wood), or 468 (Handley); in fact we think the first-mentioned might safely have been placed higher still. *Crèves* were a capital lot, and the winners perhaps well placed on the whole, though we liked either of Mr. Knight's pens or Mr. Wood's as well as the third-prize pair; first and second being very good.

*Of Malays* there were very few. The winners were good, though all the highly commended pens closely pressed on them. The only White pen were large and good in points, but horrible in colour.

*Americans* were two capital classes. We should think as layers they will be appreciated. We confess our *penchant* is for the Whites; we have seen them on a green run, where they certainly look very elegant. But the Brown is the hardy variety, we hear, and we think will soon make themselves known as useful fowls. We did not care for the cup Browns, and thought Mr. Kitchen should have had it, though the third-prize pullet was very pretty. In Whites we liked 526, or even 527 (Fowler) as well as any pen. The third went to Plymouth Rocks.

*Silkie*s were a charming class, but we could not agree with the awards: crests, colour, combs, all had to give way to leg feather. This we think positively ridiculous, for the latter is easy enough to obtain, while the former points are very difficult. But we hope to publish in this Journal soon one or two articles on this breed, when we will state our views on the matter, as perhaps we have given as much time and trouble to the variety as anyone. As it was, undoubtedly the best pen in the class was Mr. Stephen's, and perhaps next to it Mr. Cresswell's; Mr. Nicholl's pen (539) had a comb like a Hamburg's, and several pens had visible proofs of vulture hocks, which should at once be condemned.

The Variety class was good; a splendid pen of Sultans were first, Black Minorcas second, and Scotch Dummies third; good Sultans, Minorcas, and Scotch Greys coming in for high commendations.

*Bantams* were exceedingly good, the Game especially so, but the Black Bantams were the cream of the lot; every noticed pen was good, and many others as well. Sebrights were beautiful, exquisite Silvers winning first easily. We were glad to see the quality here so good. In the Variety class Pekins were first, and White Rose-combs second and third. There were several good pens of White-booted also, and we think a class here would pay well. Mr. Bloodworth's pen of White Rose-combs were the Palace winners, but the cock had his tail pulled out *en route* to the Show, or they would have been most probably near winning.

*Ducks* were grand. We wonder if a better Aylesbury drake than the winner was ever shown; his colour, size, and shape are simply wonderful. Rouens were good, and judged by weight we believe. Fancy Ducks made a most attractive class where Mandarin, Carolinas, and Spotted Bills drew the winning cards. Blacks were lovely, and in a perfect light. The winners were well chosen, and the awards most favourably received. Mr. Sainsbury has good colour and small size this season. Calls only mustered three pens, all good; but this class will die a natural death we may as well state here, unless eight entries are guaranteed in 1876, at least so we hear.

*Geese* and *Turkeys* were wonderfully fine, and the Aylesbury

pair again scored another triumph in the former class. Every pen in the Turkey class was noticed, and the quality was exceedingly good throughout.

The Selling classes were very large, and many pens changed hands. We noticed here several pens of Buff Cochins of more than ordinary merit. The second-prize Buff pullets realised £5 5s. by tender. We are assured Cochins are generally looking up and are in great demand. We are glad to hear of it, for we owe a great deal of the mania to the first-introduced Cochins, which set the market going and created such a *furor* in by-gone years.

#### PIGEONS.

The Pigeons are always a great feature at the Oxford Show, and well they may be when sixteen silver cups are offered for them. They were charmingly shown in the Town Hall, out of the general noise of the Poultry Show, and we must say that we rejoice in still seeing here and there the smaller varieties shown in pairs. Even for Oxford the Show this year was a remarkable one, and we heard that the Judge considered the classes of Blue and Silver Turbits and of English Owls the best he had ever seen.

Carriers headed the list with six classes. Blue or Silver had two classes. The cup went to Mr. Hammock's bird, a Blue of immense length and fine form and skull; apparently not an old bird, for his wattles were not yet much developed. Second cock a Blue also, without the length of the first, but a good bird, excellent in tail and wattles. Third, another Blue in good and sleek condition. The hens were a fair class, the first a Silver Dun with somewhat watery eyes; second a long and fine-headed Blue, not in first-rate condition; third a fair Blue. In the two classes for Any other colour the cup went to Mr. Fulton's noble Black cock, a grand bird in all points; second in cocks was a Dun, but slightly his inferior in head and wattle, belonging to the same exhibitor; third a Black with long fine form. The first local prize went to a creditable Dun, which we saw was claimed at £7. In the class for hens Mr. Fulton repeated his victory, taking first with a Black and second with a Dun. Young birds had two classes and two cups. That for Blue was carried off by Mr. Stretch with a bird of great promise, his head and wattle will some day be magnificent; second was also a very stylish bird. In the other class, Mr. Simpson's cup bird was a Black in a bloom of condition which it is delightful to see; second was another Black, running him hard; third a Dun of peculiarly rich colour and striking form. Col. Hassard showed a good Dun, deservedly very highly commended, though not equal to the third-prize bird. Pouters had two classes for Whites, which were beautifully filled, and two for Any other colour. Mr. Heath's first-prize White hen was a most remarkable bird, and though entered at twelve guineas was claimed. The first-prize White cock was a bird of extraordinary limb. If we mistake not a cock or two passed for hens in the class assigned to the weaker sex. In the two classes for Any other colour the cup went to a Black-pied cock, a fine bird but a little looser in crop than we like; the second cock was a Red; the third a Blue, particularly good in colour. In the class for hens first and third were Blacks, the third not equal to the first in points, but excellent in colour; second was a Yellow. Barbs.—The cup for the best pair of Barbs or Tumblers was awarded to the first pair of adult Barbs, magnificent Duns; second were Blacks; third Duns in beautiful bloom and condition, though not equal to their wondrous predecessors in head. In the class for birds of the year, first were Blacks, which we did not think remarkable; second promising Duns; and third nice Yellows. Owls were a splendid collection—in fact, we suppose the Owls, Turbits, and Magpies were as good classes of the kinds as have ever been seen in one show. In English Owls the winners were all good, but we thought Mr. Allen's hardly had justice done to them; but the cream of the two classes was the cup pen, they were perfect gems and a show of themselves. Rants only came four pens strong, and Nuns only five, but the quality was good, and we wonder the former variety especially does not muster more supporters. Turbits were truly grand. We liked one or two pens quite as well as the winners. 1215 (Hardy) had a splendid bird. In the other class exquisite Blacks were first, really a pair of gems. In the second-prize pen of Reds the hen is a wonder, perhaps the best in the fancy. Third good shell-crested Blacks. Mr. Cresswell's birds are all so extremely good in gullet. Fantails were good, and we should think two classes would pay here another year. Mr. Serjeantson's were wonderfully nice. We noticed a nice pen of Blacks and another of Blues, but the whole class was very fine. Jacobins were a nice lot, beautiful Yellows first and second, and third good Reds and Whites; the latter pen perhaps the best. 1256 (Cresswell), a nice pair of Reds. Trumpeters, six pens, but Mr. Schweitzer's and Mr. Lederer's pens were empty. The winners were all Russians, all good, and all Black. Magpies were, as we said above, two beautiful classes. The first-prize Blacks were quite exquisite and admirably shown. The other class was also admirable, and Mr. Baker's winners well selected, the second Yellows, however, coming near to them.



the result is a coldness when they meet, or, worse, absolutely avoiding each other. I have heard of even worse still—viz., that a difference about a feather, or the shape or colour of a bird, has broken a former friendship. This is deplorable. Soon the great gathering of fanciers will take place at the Crystal Palace Show, and I hope when it comes, so near Christmas too, that no fancier's hand will be given or taken other than kindly, and not one will look into the pens in order to avoid looking at a former friend.

Having finished my little homily on "brotherly kindness," I will say a word about the Jacobins. I see there is a point—an artistic point I may call it—in the dark thighs which I had not noticed, as they give a balance to the eye, which takes in profile the whole frill, and this Pigeon should be long and boat-shaped. As to the low cut, I mean only just a little low, the white coming in a narrow line below the back, which prevents what has to me a kind of choked appearance.

By what I hear we shall see some splendid Jacobins in colour and points at the Crystal Palace Show.—WILKINSON BROTHERS.

### NORWICH BIRD SHOW.

THE Norwich Alliance and East Anglian Ornithological Association held their third grand annual Exhibition of Canaries, Mules, and British and foreign cage and song birds (open for competition to the United Kingdom, in St Andrew's Hall, Norwich, on Friday, Saturday, and Monday, October 20th and 21st, and November 1st, 1876. The Exhibition was tastefully arranged with plants and shrubs kindly lent for the occasion by the Messrs. Ewing of the Royal Norfolk Nurseries, Baken. The Show was a capital one, more than nine hundred birds having been entered for competition and sale. Messrs. Mackley of Norwich won two silver cups and an electro-plated teapot and mustard-pot. Mr. Fairbairn of Canterbury won a silver cup, as did also Mr. J. Theobald of Bristford, and Mr. E. Hawkins of Leicester Square, London. Mr. W. A. Blakston judged.

**NOVEMBER.—Clear Yellow.**—1, G. & J. Mackley, 2, Burwell & Wright, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Tinted, Unusually-marked, and Variegated Yellow.**—1 and 2, G. & J. Mackley, 3, J. Adams, 4, J. Theobald, 5, J. Adams, 6, E. Moller, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Marked Crested Yellow.**—1 and 2, G. & J. Mackley, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow, with Clear, Grey, or Dark Crest.**—1, F. Woodward, 2 and 3, G. & J. Mackley, 4, C. J. Bell, 5, J. Adams, 6, J. Theobald, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Clear, Tinted, and Variegated Yellow.**—1, Mrs. J. Horn, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Golden-spangled, with Broken Cap or Pied Wings or Tail.**—1 and 2, T. W. W. Fairbairn, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Golden-spangled, with Broken Cap or Pied Wings or Tail.**—1, E. Ritchie, 2 and 3, T. W. W. Fairbairn, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Clear Yellow.**—1 and 2, J. Theobald, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Variegated Yellow.**—1 and 2, J. Theobald, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow Moustache.**—1, G. & J. Mackley, 2 and 3, E. Fleming, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow Moustache.**—1, J. Theobald, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow.**—1, J. Adams, 2 and 3, J. Caplin, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow.**—1, J. Adams, 2 and 3, J. Caplin, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

**NOVEMBER.—Yellow.**—1, J. Adams, 2 and 3, J. Caplin, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

(Champion and Males and Canary). 2, W. Carrich (Greenback), 3, E. Chapman (Lancet), 4, G. Cook (Dark Lancer), 5, E. Hawkins (Main between Champion and Canary), 6, W. & C. Burdison, 7, J. Manton (Brown Lancer and Goldfinch), 8, G. & J. Mackley (Lancet Male) (2).

### GROUPS.

1.—Irrespective of colour.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

### BRITISH BIRDS.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

### FOREIGN BIRDS.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

1.—Three Yellows and Three Reds.—1 and 2, G. & J. Mackley 3. 1.—Three Yellows and Three Reds.—1, A. Palmer, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50,

have made the rash assertion of allotting worker bees nine months as their span of life. Why, at this rate a May swarm whose queen lays two thousand eggs per day would increase her subjects in the three summer months to 212,000! Allowing one-third deaths by casualties, would still give about 28 lbs. weight of bees and brood as the inhabitants of the hive! I believe I have stated that in summer, when bees work hard, six or eight weeks is the limit of their days. Mr. Pettigrew doubtless refers to me as the writer who is responsible for this statement; I accept the responsibility, and I even believe that one or two weeks may be deducted from that short span.

The substitution of an Italian queen for a common English one has now become one of the commonest of all apian operations. I venture to say the experiment has been repeated five hundred times during the season just past, and where three months have elapsed, and the queen proved fertile, none of the black workers remained. In the case of a Ligurian queen being now introduced when breeding has almost ceased, black workers will be found in April, but not after the May sun has warmed the bees to activity. Where a stock is queenless over the winter, the workers having no work to do will live longer, but certainly not nine months under any circumstances whatever. Idleness prolongs life in the worker and queenlessness in the drones, some of which I last season kept from September till April, when the last disappeared. I cannot find who has said the young destroy the old bees and push them out of the hive. This is not my statement or experience.

Many of our best apianists now use nine with 8-16th perforations as adapters between hive and super. I have never heard of an instance of brood being found in the latter when such were used. Can Mr. Pettigrew say it is an uncommon occurrence when admission is given through a large aperture?—JOHN HUNTER, *Eaton Rice, Basing.*

#### BRITISH BEE-KEEPERS' ASSOCIATION.

THE Committee at their last meeting practically reversed the Judges' decision in regard to Mr. G. Fox's splendid super, by expressing their belief in the *bona fides* of Mr. Fox's statement, regret at the Judges' award, and voting to Mr. Fox the silver medal of the Association in acknowledgment of the exhibitor's skill as a bee-master. The Committee may be congratulated in making all the amend in their power in regard to this unfortunate occurrence.

#### HIVE COVERS.

IN answer to the request of "CAROLUS" I have to say, that though hives are often well protected from the weather by close wooden bee-houses, I have never seen one that I considered convenient. I have seen some very ornamental and costly, and some very rustic and ancient. The best I ever saw was a large

sooner done when they stand singly and separately. [All my hives stand singly on three posts, and are covered with roofing felt for the outer covering, and old carpets or cocoa-nut matting under the felt. The felt is waterproof, portable, convenient, and durable. By warming it at a fire when first used it becomes as soft as flannel, and in this state it should be fitted on. Nest straw covers are more pleasing to the eye, and are excellent protectors both in winter and summer, but they are not so durable and portable.]

Fig. 89.

On paying a visit to Mr. Bagshaw, Longnor, Buxton, some three years ago, I found his hives standing about 6 feet apart, and securely protected from the weather, each hive being placed in a neat ornamental wooden house wall painted. Eighteen of these small ornamental houses standing in three rows greatly improved the appearance of his garden. These houses are about 2 feet deep and 2 feet wide, with moveable overhanging covers. The covers or lids are as easily moved as felt, and the hives as easily lifted for examination and replaced. Neither wind nor rain can touch the hives inside. The houses are wide enough to hold some warm materials between their sides and the hives, and are deep enough to admit supers being placed on them. If a prize were offered for the best covers, I think

Fig. 88.

round wooden house, about 11 feet wide and 10 feet high, with two shelves running round it; one shelf about 8 feet above the other. So far as protection from the weather goes nothing could be better, but they are inconvenient in many respects—indeed, all the bee-houses I have seen are inconvenient (in the way) when the bee-master wants to examine the hives they contain. I examine my bees frequently during the summer, by turning them up to see how they are working and progressing. In this way I ascertain when the hives should be swarmed, supered, and eked. The work is much easier and

Fig. 90.

Mr. Bagshaw's would easily gain it. At all events I have seen nothing equal to his for completeness, convenience, and durability. The square houses or boxes complete cost 15s. each, and the octagonal boxes 20s. each, made and painted at Longnor. They cost more at Sale, wages being higher there. The woodcuts will give "CAROLUS" and others some idea of what I have been writing about.—A. PETTIGREW.



I find nothing so neat as ferns. If these are cut dry at this season they have a rustic appearance, and are quite as durable as straw. I take a bundle about the size of a wheat-sheaf, and tie the bottom ends together; then open the sheaf in halves, and place it firmly on the top of the hive; then arrange the fronds regularly round the hive. I tie them round the hive with willow bands, and clip the ends below the floorboard.—R. H. D.

### ANOTHER YEAR'S EXPERIENCE.

A GENTLEMAN in Ireland asks what effect or impression has been made on my mind by the use of large hives since the 'Handy-Book of Bees' was first published. He is evidently a little distrustful of what has been said in their favour. Our own opinions as to their value and superiority have been pretty strong and well established for thirty years, but every year's experience furnishes us with incentives and encouragements to do what we can to enlighten public opinion on the question.

From all parts of the country we hear of successes from the use of large hives of simple construction that were never dreamed of before their introduction. And all who give them a fair trial in a good season become inspired with confidence in them.

The logic of facts, and outside pressure, may, perhaps, induce the Managing Committee of the Bee-keepers' Association to offer prizes for the heaviest swarms, and the greatest results in honey and comb from one stock hive managed on any system. If this be done we shall probably find results approaching 3 cwt. of honey and combs exhibited as the produce of one stock hive and its swarms. Last year we suggested the offering of prizes for heavy hives and their swarms. We shall be pleased if one or two gentlemen offer a handsome prize next year for such hives and swarms.

Even this year, which has not been favourable for bees, some stock hives rose in weight to 90 lbs.; first swarms to above 100 lbs., and second swarms, or turn-outs, to 90 lbs. If the British Bee-keepers' Association continue to seek novelties and "fancy goods" (as the Hon. and Rev. Mr. Bligh calls them), instead of seeking the best results produced in England, it will, we think, become the apirians of this country to do what they can to induce the Royal Agricultural Society of England to take bee-culture under its fostering wing, for honey is as much a product of the soil as milk or meat.

**SWARMING AND NON-SWARMING.**—On this point, too, history repeats itself in favour of the swarming system of management. In good seasons for honey swarms become heavier than stocks that never swarm at all, and the mother hives and second swarms rise to 70, 80, and 90 lbs. each. No such results can be obtained on the non-swarming mode of management. Besides, on the swarming system the apiary may be kept full of hives filled with young sweet combs, and possess young queens; on the non-swarming system queens become old, combs become black, tough, and ugly, often pollen-bound and distempered with foul brood. Bee-farmers especially find it to their interest to let their bees swarm. Honey run out of the comb is more saleable here and in many other places than honeycomb. Our object, then, is to obtain the greatest weight of honey, and we obtain this more certainly from two or three colonies of forty thousand bees each than from one of no greater strength.

Another year's experience urges us to recommend swarming in preference to non-swarming, but both may be practised in one apiary. This year we obtained an unusual amount of pure virgin honeycomb, not from supers, but from the hives of swarms. In emptying these the pure comb was placed on dishes and in clean hives on one side, and the darker combs containing honey were placed on the other side. From some of these hives we had as much pure virgin combs as would have filled three ordinary-sized supers. Though most of the run honey is sold, we have great heaps of beautiful comb on hand. To be sure we have an order from a distant city for all we have at our own price, but as it is not in supers we fear it would not carry well so far. These things are mentioned to let amateurs know that with large hives managed on the swarming principle they may always have a good supply of honeycomb.

Another year's experience has tended to open our eyes to the importance of spring-feeding if the weather be unfavourable. Slow continuous feeding, say a halfpenny worth of sugar given to a hive daily during the spring months, whether it has honey or not, encourages the bees to breed, and greatly tends to health and prosperity. Great assistance, too, is afforded to swarms after they are hived by feeding when the weather is unkindly.

Keeping hives warm and dry during the winter and spring months is a matter of greater moment than most apirians think. Bees are easily chilled into helplessness. Hard frost and severe winters try them sorely. Life in winter, while the mercury indicates 20° of frost, is one of suffering to bees. The winter of 1859 or 1860, which brought down the mercury to zero, destroyed thousands of hives. All hives should have their doors contracted now, and be well protected by coverings of some kind. An additional under garment is often a great comfort and protection to the human frame in cold weather; and

bee hives in the open air cannot be too warmly covered. Soft dry hay and woollen rags well stuffed beneath the outer covering of hives afford great comfort to bees. Even three or four large newspapers wrapped around hives protect their inmates much. The outer coverings should be sufficient to shed every drop of rain that falls on them.—A. PATTISON.

### OUR LETTER BOX.

**ADDRESS (W. H.).**—We cannot reveal the address of correspondents. If you will enclose a letter in a stamped envelope we will forward it.

**HEN'S VENT TUMOURED (A. B. C.).**—Cut away all the clogged feathers, and with warm water wash and cleanse thoroughly the affected part; afterwards anoint thoroughly with goose grease or lard the skin and flesh all round the vent, and repeat the dressing daily while necessary. If the bird seem heated or feverish in the skin give a strong dose of castor oil. Plenty of green food should be given daily.

**BELGIAN MODE OF RABBIT-KEEPING (J. M. Derby).**—The Belgians keep their Rabbits very much the same as we do, but they have time and a great choice of food at a very small cost. The breeding adults are kept in small pens or boxes in half darkness, and the young when weaned are turned into large cages or pens to fatten for the table. We think the very small cost of produce has more to do with the amount of profit than any particular system followed. There was formerly a large establishment for rearing them at Nieuport, about ten miles from Ostend.

**WATERPROOFING CANVAS (A Subscriber).**—Paint one side of the canvas with coal tar in which a small quantity of fat is dissolved, and powder over the tarred canvas some slaked lime.

**VENTILABLE PARCHMENT (F. E. S.).**—We believe it is made by applying sulphuric acid to paper, but how or in what proportion we do not know.

### METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.						Winds
	Baromet. at this Level.	Hygrom- eter.		Direction of Wind.	Temp. of Air at 9 A.	Shade Tem- perature.		Radiation Temperature.		In sun.	On grass	
		Dry.	Wet.			Max.	Min.	In sun.	On grass			
1878. Oct. Nov.	Inches.	deg.	deg.	S. E.	deg.	deg.	deg.	deg.	deg.	In.		
We. 27	29.785	43.0	41.0	S. E.	47.3	42.3	40.5	52.0	42.3	0.041		
Th. 28	29.873	45.0	44.4	N. E.	47.0	42.8	41.4	52.3	41.6	—		
Fri. 29	30.071	45.4	44.3	N. E.	47.3	42.7	40.8	52.0	37.8	—		
Sat. 30	29.923	43.0	39.9	S. E.	45.7	44.4	41.3	44.3	41.0	—		
Sun. 31	29.887	42.8	40.3	S. E.	45.6	45.6	39.7	52.0	39.4	—		
Mo. 1	29.887	44.0	41.3	S. E.	45.7	47.3	38.1	52.4	31.3	—		
Tu. 2	29.901	43.9	40.0	S. E.	45.5	45.3	40.3	52.9	38.3	0.010		
Means	29.925	44.0	42.0		46.4	47.3	40.0	52.6	39.7	0.061		

### REMARKS.

27th.—Cold and damp all day.  
28th.—Fair, but dull, and at times very dark all through the day.  
29th.—Cloudy and dull all day, but without rain.  
30th.—Fair all day, but cloudy and cold.  
31st.—Hazy early, soon clearing off; a fine though cold day; very bright about 3 P.M.  
Nov. 1st.—Fair and pleasant all day; but at no time bright.  
2nd.—Another fair but dull day; slight rain at night.  
A very cloudy dull week, almost without either sun or rain. The mean temperature generally about 5° lower than that of last week; the mean maximum in sun was more than 17° below that of the preceding week.—G. J. SIMONS.

### COVENT GARDEN MARKET.—NOVEMBER 3.

THERE is very little alteration to quote this week, and with trade still quiet prices remain much the same.

#### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	3	0	Peaches.....	doz.	0	6	0
Obstantes.....	1	0	3	0	Pears, kitchen.....	doz.	0	6	0
Figs.....	doz.	0	0	0	Pears, dessert.....	doz.	1	0	0
Filberts, Cobs.....	lb.	0	5	0	Pine Apples.....	lb.	0	4	0
Grapes, house.....	lb.	1	0	0	Strawberries.....	lb.	0	0	0
Lemons.....	£100	6	10	0	Walnuts.....	£100	1	0	0
Oranges.....	£100	8	10	0	ditto.....	bushel	4	0	0

#### VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	3	0	0	Leeks.....	bunch	0	4	0
Asparagus.....	£100	0	0	0	Lettuce.....	dozen	0	6	0
French.....	bundle	0	0	0	Mushrooms.....	pottle	1	0	0
Beans, Kidney.....	1	0	2	0	Mustard & Cress.....	pennet	0	2	0
Broad.....	1	0	0	0	Onions.....	bushel	2	0	0
Beet, Red.....	dozen	1	0	0	Pickling.....	quart	0	0	0
Broccoli.....	bundle	0	0	0	Parley.....	doz.	0	0	0
Brussels sprouts.....	1	0	0	0	Parasols.....	dozen	0	0	0
Cabbage.....	dozen	1	0	0	Pears.....	quart	0	0	0
Carrots.....	bunch	0	4	0	Potatoes.....	bushel	2	0	0
Capeloms.....	£100	1	0	0	Kidney.....	do.	0	0	0
Cauliflower.....	dozen	2	0	0	Radishes.....	doz. bunches	1	0	0
Celery.....	bundle	1	0	0	Rhubarb.....	bundle	0	0	0
Coleworts.....	doz. bunches	3	0	0	Salsify.....	bundle	0	0	0
Cumbers.....	each	0	0	0	Scorzonera.....	bundle	1	0	0
.....	dozen	1	0	0	Seakale.....	basket	0	0	0
Endive.....	dozen	1	0	0	Shallots.....	lb.	0	0	0
Fennel.....	bunch	0	0	0	Spinach.....	bushel	3	0	0
Garlic.....	lb.	0	0	0	Tomatoes.....	dozen	2	0	0
Herbs.....	bunch	0	0	0	Turnips.....	bunch	0	4	0
Horseradish.....	bundle	4	0	0	Vegetable Marrows.....	doz.	1	0	0



## WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 11—17, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.	
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	s.	
11	TH	Royal Horticultural Society—Fruit and Chrysanthe-	50.2	84.3	42.2	13	47	15	44	18	48	21	44	18	15	49	815
12	F	[ mum Show closes.	50.2	88.8	42.0	15	7	18	4	30	8	51	5	14	15	42	816
13	S		49.9	85.2	42.6	17	7	12	4	58	8	26	7	16	15	34	817
14	SUN	25 SUNDAY AFTER TRINITY. [ opens. [ Show.	48.5	88.8	41.3	19	7	11	4	26	4	8	9	16	15	24	818
15	M	Loughborough Show. Crystal Palace Poultry Show	49.0	84.8	41.9	20	7	9	4	17	5	81	10	17	15	14	819
16	TU	Hackney (late Stoke Newington) Chrysanthemum	48.9	88.2	41.0	22	7	8	4	27	6	40	11	18	15	8	820
17	W	Length of day 8h. 42m. [ Show.	48.1	88.9	41.0	24	7	6	4	51	7	after.		19	14	52	821

From observations taken near London during forty-three years, the average day temperature of the week is 49.2°; and its night temperature 84.1°.

### THE ROSE ELECTION. DECLARATION OF THE POLL.

**I**N giving to the readers of our Journal the result of the election of the newer varieties of our national flower I must commence by regretting that the declaration of the poll has not been delivered in the past month. This was my full intention, but "circumstances," to use a common but trite saying, "over which I had no control" have given me but scant time for entering into this election as fully as I desired, and have compelled me to defer the result. The difficulties are probably greater than most persons imagine. The necessary correspondence is great; rarely is one exchange of letter sufficient for each elector; there is a difference of opinion as to the age of a Rose, or too many Roses are named when a limited number is asked for—in fact a variety of circumstances which necessitate the interference of the returning officer to render the returns complete and reliable.

Then some reply, *Cui bono?* The best answer to such a question is the fact, that one firm in the north advertised last year the fifty best Roses as brought out by the 1874 election, simply altering two Roses that did not suit the northern elements; whilst another eminent rosarian in the trade advertised week after week the twelve best new Roses as brought out by the 1875 election, which election he had positively declined to assist! I smiled at the advertisement, thinking it a curious corollary to the refusal. These are, I may say, public avowals of the utility of the election. Private letters equally attest

the fact that the returns are looked forward to with interest; whilst a paragraph like the following speaks for itself—"I have ordered every Rose not in the fifty to be discarded." It is indeed tolerably clear that, although the electors are not infallible guides and are all liable to crotchety notions here and there, yet the general *résumé* of the whole election is a fair index of the value of a Rose. Indeed, the wish expressed by some writers in our Journal that this kind of election should be extended to other flowers and fruits, is in itself an admission that the election is of value.

In the present election of the newer Roses—that is, those introduced since 1869, including that year, there is the difficulty of the age of each candidate. I have before expressed the wish that some enterprising rosarian in the trade would give us a catalogue with the age of the Roses attached. Some of the electors have expressed to me the same thought. I believe such a catalogue would be warmly appreciated. This very point makes this election of the newer Roses a greater difficulty than it would otherwise be; and there are some Roses in the lists that appear to me to take copy by some of us mortals and profess to be younger than they really are. Roses, not being equine, have no teeth on which to pin our verdict. I have my doubts as to Emilie Hausberg and Dupuy-Jamain, even though a leaf of a catalogue was sent me in which both were marked as Roses of 1869. Had they been so, I cannot but think that somebody in the election of 1875 must have named these two beautiful Roses, but they were on that occasion voteless. This would hardly have been possible; the names, however, stand. With this introduction I lay the declaration of the poll before our readers.

The columns, &c., are as heretofore: First, the No. denoting the position of the Rose, then the name, age, and kind of Rose. Letters A, B, and C represent the amateurs' votes, the same letters with an asterisk (\*) the nurserymen's. The last column is that which decides the position of the Rose, the gross total. A and A\* denote each the number of first-class votes—viz., in the first twelve each Rose has received; B and B\* the number of second-class votes; C and C\* the totals of amateurs' and nurserymen's votes respectively.

No.	Name of Rose.	Age.	Kind.	Amateurs.			Nurserymen.			Total	No.	Name of Rose.	Age.	Kind.	Amateurs.			Nurserymen.			Total
				A	B	C	A*	B*	C*						A	B	C	A*	B*	C*	
1	Marquise de Castellane	1869	H.P.	18	..	18	10	1	11	24	24	Baron Bonstetten	1871	H.P.	2	4	6	..	8	8	9
2	Louis Van Houtte	1869	H.P.	19	1	18	11	..	11	24	25	Annie Laxton	1871	H.P.	..	6	6	..	8	8	9
3	Capitaine Christy	1873	H.T?	8	5	18	8	8	11	24	26	Hippolyte Jamain	1874	H.P.	1	2	8	2	8	5	8
4	Etienne Levet	1871	H.P.	11	2	18	10	..	10	28	27	Madame Hippolyte Jamain	1871	H.P.	2	1	8	8	1	4	7
5	François Michelson	1871	H.P.	18	..	18	7	8	10	28	28	Nachury	1878	H.P.	..	4	4	..	8	8	7
6	Comtesse d'Oxford	1869	H.P.	14	1	18	8	2	10	28	29	Marie Guillot	1874	T.	..	..	..	4	2	6	6
7	Mlle. Eugénie Verdier	1869	H.P.	11	1	12	9	..	9	31	30	Madame Berard	1869	T.	2	2	4	..	2	2	6
8	Catherine Mermel	1869	T.	10	1	11	8	1	9	30	31	Souvenir de Paul Neron	1871	T.	1	4	5	..	1	1	6
9	Ferdinand de Lesseps	1869	H.P.	9	2	11	2	5	7	18	32	Auguste Rigotard	1871	H.P.	..	2	2	1	8	4	6
10	Marie Van Houtte	1871	T.	5	8	8	5	8	8	16	33	Rev. J. B. M. Camm	1874?	H.P.	1	8	4	1	..	1	5
11	Madame Lecharme	1872	H.P.	2	6	8	2	6	8	16	34	Star of Waltham	1874	H.P.	..	2	2	2	1	8	5
12	Paul Neron	1869	H.P.	5	4	9	2	4	6	15	35	Sir Garnet Wolseley	1874	H.P.	..	1	1	8	4	5	5
13	Mlle. M. Cointet	1873	H.P.	2	5	7	4	3	7	14	36	Le Havre	1869	H.P.	1	2	8	..	2	2	5
14	Mad. G. Schwartz	1871	H.P.	8	5	8	1	5	6	14	37	Richard Wallace	1871	H.P.	..	4	4	..	1	1	5
15	Reynolds Hole	1878	H.P.	8	7	10	1	8	4	14	38	Miss Hassard	1874?	H.P.	1	1	9	1	1	2	4
16	Mlle. Marie Finger	1873	H.P.	1	6	7	2	8	5	12	39	Superb et Notting	1874	Moos	1	..	1	1	2	8	4
17	Perle des Jardins	1874	T.	..	2	2	6	3	9	11	40	Souvenir de Spa	1878	H.P.	1	1	2	..	2	2	4
18	Obichants Hybrid	1873	H.T.	5	4	9	1	1	2	11		The Shah	1878	H.P.	..	4	4	..	..	..	4
19	Thomas Mills	1878	H.P.	2	4	6	3	2	5	11	41	Wilson Saunders	1873?	H.P.	..	4	4	..	..	..	4
20	Belle Lyonnaise	1869	T.	2	4	6	2	3	5	11		André Dunand	1871	H.P.	..	8	8	..	1	1	4
21	Princesse Beatrice	1871	H.P.	2	4	6	..	5	5	11	46	Claude Levet	1873	H.P.	..	2	2	..	2	2	4
22	Edouard Morren	1869	H.P.	2	2	4	2	3	5	9		Eliza Boille	1869	H.P.	..	1	1	..	8	8	4
23	Duchess of Edinburgh	1878	H.P.	1	4	5	2	2	4	9		Beattie Johnson	1871	H.P.	..	8	8	..	1	1	4

Thirteen Roses received three votes each, a like number only two votes; the remainder had but a solitary champion

to express partiality for them. Altogether, by the twenty-four electors, 107 Roses were named in the twenty-five

and, very curiously, fifty-four, or a fraction over half that number, were named as in the best twelve, no less than nine of these having only a solitary vote.

One of the most valued contributors amongst the amateurs has suggested that the election of newer Roses should be confined to the three previous years. There is something to be said for this proposal. I, with all deference, think there is more to be said against it. The proposal will suit those to whom money is no object, who will buy the highly-vaunted candidates for English money, *coute qui coute*, and if they turn out worthless dispatch them to make room for others. But our Journal does not write for this class alone, but has always striven to help those who looked at both sides of a shilling before spending the same in Rose-flesh or otherwise. Now to these it is sometimes a matter of doubt whether it may not pay better to have a newer Rose at 8s. rather than two at 1s. 6d. Now the present election is a case in point. There is a recent introduction comparatively, *Capitaine Christy*, an 1878 Rose, running close up for the premiership, losing it in fact only by "the skin of the thorns," the only teeth a Rose has. Better still, there are two 1874 Roses, *Perle des Jardins* and *Marie Guillot*, that are also instances—cases, in fact, where an intending purchaser might decide to lay out the larger sum on account of the position of these Roses; but this position could hardly be so manifest if only the last three years were taken. Then, again, to me it adds considerably to the interest of the election to mark how old friends hold their ground. In this respect I think the election of 1878 as compared with the present offers marks both of interest and utility. For example, in 1878 several Roses were placed highly which are in this election wholly out of the running—viz., *President Thiers*, No. 11; *Lyonnaise*, 13; *Madame Lef. Bernard*, 15; and *André Dunand*, 16. Now, where are these Roses in 1878, when, be it remembered, we have twenty-five Roses named instead of twelve, as in 1873? One alone appears in the return, although forty-six Roses are named instead of twenty-six! and this Rose, *André Dunand*, has only four votes, *Lyonnaise* has only three votes, and *Thiers* but two. What a fall is here! These Roses appear, in fact, to deteriorate. On the other hand some, as *Marie Van Houtte*, *Madame Hippolyte Jamin*, and *Belle Lyonnaise*, have greatly improved their position. Such comparisons I fancy have their value.

In the election of 1878 I ventured to remark that *François Michelon* would probably run *Etienne Levet* very closely for the premiership of their year. They have now an equality of votes, the latter having slightly the better class of votes. *Catherine Mermet*, too, though standing well in 1878, has very deservedly risen; few Roses are more lovely, and she enjoys a harder character than many of her class. Of *Madame Lacharme*, for and against whom so much has been said, the verdict is favourable, two-thirds of the voters naming her, but mostly in the second division. Under glass there is no doubt that she can be beautiful, but in the open she can be coy in exposing her charms.

I hope in a fortnight's time to publish the result of the Roses as tried by the noses; meanwhile I desire to express my grateful thanks to all those who have kindly contributed to make the present return of any value by sending in voting papers. Without them the election would indeed be null and void.—JOSEPH HINTON, *Warminster*.

### RASPBERRY CULTURE.

WITH reference to the difficulties of "A LADY GARDENER" in growing Raspberries, I would advise her to have the ground where she is intending to grow her plants well trenched, and after all is in readiness and the ground not too wet, have pits taken out where the plants are to be placed sufficiently large to hold one good barrowful of thoroughly decayed vegetable refuse, and incorporate it well with the soil before planting, and to fork-in a liberal dressing of the same material every year round the roots and all over the ground. If she adopts this simple mode of treatment I think she will succeed.

I have seen the strongest canes and the best fruit I ever saw picked from plantations thus treated, and where every other kind of dressing had been tried and failed to produce satisfactory results. I invariably adopt this mode of cultivating the Raspberry, and I have not yet had any cause to change my practice. I have, however, not had the opportunity of seeing it tried in town gardens.

If "A LADY GARDENER" should try the plan she might

kindly give us the results of her experience, as, if she does succeed, her experience would be of benefit to others similarly situated.—JAMES FAIRWEATHER, *Halston, Orcestry*.

### SOIL AND CLIMATE IN RELATION TO PRACTICE.

I AM not unacquainted (see page 355) with the use of burnt clay, charcoal, charred rubbish, &c., having very early in my gardening career seen the benefits arising from their free use. This will be understood when I say that I received my first horticultural lessons at Shrubland, where Donald Beaton kept a man continually burning clay for the use of the gardens, and where he left on his retirement a legacy of some thousands of tons of it for the use of his successors. Although I had not the advantage of actually working under the directions of the good old man I was well acquainted with him, and commenced my employment in the gardens a few weeks after he left.

Now, to show that I have not forgotten my early lessons, I may say that if I do not use much burnt clay for reasons which I will presently explain, I use what is preferable in many ways—wood charcoal in large quantities.

For planting fruit trees, and also for growing plants of all sorts in pots, it is almost the only thing used for keeping the soil sweet and open. I have not used a ton of sand in six years. Hard burnt clay would also keep the soil sweet and open—I mean clay which was not smother-burnt, for very stiff clay cannot be burnt in that way. But charcoal does more than this. The plants have actually the power of dissolving and feeding on it, it therefore enriches the soil; most other things used for keeping it open impoverish it.

Rubbish of all sorts smother-burnt is invaluable for garden purposes, and advantage should always be taken when burning rubbish of any kind, after getting a good body of fire, to cover it up with soil and leave it to smoulder away without a great quantity of air reaching the fire. All this I have known and practised for a long time, and I thought I knew all about it as well as a good deal about drainage; but since I have been here I have found out that I do not know all about it yet.

Not all clays can be burned profitably. I had one experiment on rather a large scale. A quantity of drainage was wanted for fruit borders; stones and bricks were not forthcoming in sufficient quantities, and I determined to burn clay for the purpose. I had it burned and it made excellent drainage, and also provided me with many tons of small stuff for mixing with the heavy soil. Well, I dare not tell the cost of the experiment. I had an old practised hand to do the job who had done a good deal of the same sort of burning on railways. Both wood and small coals were used for fuel, as we could not keep the fire afloat with wood alone; and I will let out this much of the secret, that on reckoning up costs I found it would have been quite as cheap to have used the black diamonds themselves for the drainage and saved the trouble of carting the clay about. Let not this, however, prevent others from burning clay, for it can be burned both easily and profitably if it is not of too tenacious a nature. If I am obliged to burn any more here I shall take a lesson from the brickmakers and have my material cut and dried, and then piled up so that air can circulate between it, for certainly it cannot easily get into it. My surface soil which has been worked and aerated for generations would of course burn; but its quantity already is much too limited, and to burn it would be taking a lesson from the very learned man who a few months ago was advising people to burn all their manure before spreading it on the ground! I wonder if he ever tried the experiment of living on calcined beef.

Mr. Luckhurst would like to know what has been done and what is intended to be done to ameliorate the crudity of my soil. I will endeavour to explain. The garden is well drained all over, and it has a very sharp slope, so that there is no difficulty in getting rid of the water. Well, then, all borders for wall trees are dug out their full width—12 to 15 feet, down to the hard bottom, which is not far to seek. This is made to slope sharply to the front, where there is a drain tile lowered a few inches into the clay and connected with the main drains. The hard bottom of the border is then entirely covered with stones, clinkers, bricks, &c., at least 5 inches in depth; for Peaches it is 10 or 12 inches. Turf is placed on the drainage to protect it, and then soil to the depth of about 2 feet. This raises the border on the side near the wall a foot or 18 inches above the surrounding ground.

Of course the trees are not planted in the stiff clay to which I have alluded. The soil used is such as would grow Peaches

in any favourable climate. So my fruit trees are not uncared for: they have the best of drainage and the best of soil my skill can devise. It is not the soil with which the trees have actual contact that is in fault and that could make a climate good or bad. It is the soil and subsoil of the neighbourhood which helps to keep the temperature low and the atmosphere humid. Draining my Peach borders is but like a drop in the ocean; it will not prevent the *Polypodium* luxuriating on the branches of the neighbouring Oaks, nor the moss growing on the tops of the hedgerows. The fogs will still rise in the neighbouring valley, and the midsummer frosts defy our garden walls.

My trees are altogether isolated from the natural soil, but they are not isolated from the atmosphere for which the natural soil and subsoil in the neighbourhood are partially responsible. Where Peaches are so isolated, as with glass, they do remarkably well. This year I have been also wonderfully successful out of doors, but I do not yet know whether the credit belongs to myself or to the season. I have learned a great deal since I have been here, and I have materially altered my practice. Time alone will show whether I am more permanently successful than my predecessors. I trust I have said enough to show that Oldlands is not the worst place in the world to grow Peaches.—WM. TAYLOR.

### ABRUS PRECATORIUS.

THE above is the name of your ("OLD QUEEN") plant raised from seed received from the West Indies, and now "looking sickly." Its browned hue is but the natural tint of

which need rest need also support. The soil of all deciduous plants must be perceptibly moist throughout the winter, or the rest to which they are subjected may be the rest of death as it certainly will lead to impaired health. We mention this now as the period when errors in over-resting plants and trees may be made, thoughtlessly by some and systematically by others. With a low temperature and moisture in the soil plants have rest and at the same time support, but total dryness of the soil is an evil ever to be avoided alike with hardy trees and shrubs and tender plants.

Let your plants, therefore (a specimen of which we figure), have rest, but let that rest be reasonable. Keep the plant cool but in a not lower temperature than 55°. With an increase of heat in the spring it will start into growth, and may then have fresh soil given, taking the old soil away partially, but shaking-out the plant entirely. A mixture of equal parts of loam and peat with lumps of charcoal and a tenth part of silver sand will be a suitable compost. It is the Wild Liquorice, native of the West Indies; it is a pretty stove-climbing plant, its pale purple flowers being attractive and its foliage agreeable; it is of easy culture, and readily propagated from cuttings inserted in sand and placed under a bellglass in the spring. Its roots possess the same property as the Liquorice of commerce, but the seeds if eaten are apt to produce violent headache.

### ROYAL HORTICULTURAL SOCIETY.

THE following address from the Council of the Royal Horticultural Society has been issued to the Fellows along with the list of privileges for 1876 which we published last week.

The address sets forth very clearly the present state of the Society and the necessity there is for such arrangements as the Council have made for next year. The pernicious abuse of the transferable tickets which have hitherto been issued to the Fellows has very materially contributed to the reduction of the Society's income, by extending the privileges of the Society to those who did not contribute one farthing towards its maintenance. Notwithstanding the enormous increase of the neighbourhood during the last ten years in extent and population, the income of the Society from subscriptions is very much less now than it was ten years ago. The system of lending and borrowing tickets, which had become prevalent, had its natural consequence, and those who were benefited by it had no need to subscribe to the Society's funds. It is, therefore, against this abuse that the Council have been careful to provide in the new arrangements for 1876. All transferable tickets have been abolished, and every Fellow or Fellow's nominee will have to show their tickets on entering the garden as they would to any place of public entertainment.

To compensate for the loss of transferable tickets the Council have acted most liberally towards the Fellows. Every four-guinea Fellow will have three tickets, one for himself personally and the other two for his nominees. He will also have the privilege of procuring for each adult member of his family personal tickets at the rate of one guinea each, which will admit on all except specially reserved occasions; and a two-guinea ticket will admit all the junior members of his family under twelve. To illustrate this we will suppose the head of a family is a four-guinea Fellow. He receives one ticket for himself, one for his wife, and one for an adult member of his family, admitting three persons for four guineas. If he has three more adult members of his family, he can by the payment of one guinea each obtain three more tickets which will admit them also to full privileges. Thus by a payment of seven guineas six members of a household are admitted to all the benefits arising from the daily use of the gardens, admission to all shows, promenades, fêtes, and conversations. And where, it may be asked, is there in all the metropolis a fashionable suburb which has at its doors a resort and attractions which can be obtained on such terms?

Fig. 91.—*Abrus precatorius*.

autumn, for the plant is deciduous. It, like all other deciduous plants, must now be allowed a period of rest by withholding water as the foliage decays, yet not permitting the soil to become "dry as dust," which is a cause of injury to many plants during their resting period.

We have known such climbing plants as *Passiflora*, *Clerodendron*, *Clematis*, and *Stephanotis* to have been impaired in vigour by extreme dryness in the resting period. We have even known *Fuchsias*, *Roses*, *Deutzias*, and other leaf-shedding plants to have been dried so extremely in the winter as to almost refuse to break into growth in the spring. We have known also fruit trees and Vines to be greatly injured by the same cause—the former putting forth weak blossoms, and the latter breaking weakly and irregularly. It is sometimes forgotten that plants

THE Council of the Royal Horticultural Society have the pleasure of announcing to the Fellows that they have succeeded in making arrangements with Her Majesty's Commissioners of 1851, whereby the gardens are granted to them virtually rent free, but only upon the performance of one important condition—viz., that the annual income from subscriptions shall be raised to £10,000.

The present income from subscriptions amounts to £7700, a sum which experience has proved to be quite inadequate to maintain the gardens efficiently with regard either to their usefulness or their attractiveness.

The Council have been most desirous that the necessary ad-

dition to their income should be raised without undue interference with the privileges of their Fellows. They have carefully inquired into the causes why the income of the Society has not increased in proportion with the increase in the population, wealth, and importance of the neighbouring districts; and they are satisfied that this is due to the practice of transferring tickets, by which the use of the gardens is to a very large extent enjoyed by those who contribute nothing to its funds, and they are convinced that they cannot expect to obtain that enlarged revenue which is essential to their continued existence without putting an end to this practice.

It is upon this principle that the accompanying summary of the privileges of the Fellows has been framed.

Should the Council be—as they confidently hope they will be—successful in their appeal to existing Fellows and to the residents in the neighbourhood of the gardens, they will soon be in possession of funds which will enable them gradually to discharge the debts which have accrued in past times, greatly to improve the condition of the gardens, and to increase at once their usefulness and their beauty.

But they must not conceal the fact, that if this appeal should prove unsuccessful the failure would be most disastrous both to the interests of horticultural science and to those of the residents of that part of the metropolis who now enjoy the many benefits resulting from the existence of these spacious and beautiful gardens. The project so warmly supported by the late Prince Consort—so hopefully accepted by the public—of bringing home to greater numbers than heretofore the means of studying horticulture, would in that case be abandoned, and it would be for Her Majesty's Commissioners of 1861 to decide to what new and more profitable uses the twenty-two acres now occupied by the South Kensington Horticultural Gardens should be applied.

The Council believe that these calamitous results may be averted by measures which would have the effect of inducing those who now enjoy for themselves and their families most of the advantages of the gardens without paying for them, to contribute a fair and moderate annual sum towards their maintenance; and it is with that view that they have prepared the accompanying regulations, which will come into operation on the 1st January, 1876.

ABERDARE, President.

## ROYAL HORTICULTURAL SOCIETY—FRUIT AND CHRYSANTHEMUM SHOW.

NOVEMBER 10TH.

CHRYSANTHEMUMS being unusually good this year, and fruit unusually plentiful; the conditions of the Show, too, being unusually liberal both in the prompt payment of the prize money and in the facilities offered to the public; confidence also being restored and an union of sympathy established between horticulturists and the "powers that be," it would have been disappointing had not the Exhibition on this occasion been unusual also by its extent and excellence. The arrangement of the schedule was not, perhaps, all that could be desired, seeing that all the fruit classes were "open," and English growers certainly placed at a great disadvantage in being forced into competition with the more highly favoured Channel Islanders, in the classes for Pears for instance; still the proof of the arrangement lays in the results, and these we will so far as time permits proceed to notice. We know, too, that the restored confidence, though prompt, came too late to enable some growers to compete in the Chrysanthemum classes, for they had no time to prepare their plants after the "restoration." But we will not dwell on the past where all worked honestly and with the best motives, but will describe the good results of the present and hope for still greater successes in the future. The early morning of the Show will long be remembered by the competitors by the heavy downpour of rain, but as the morning advanced the clouds became exhausted.

The Exhibition, especially in the fruit classes, is truly a great one, even surpassing the most sanguine expectations. The plants of Chrysanthemums are, perhaps, generally small, but well grown. The out blooms are splendid. Thirty-five fine Pines are exhibited, and the Grapes are an excellent display. It is, however, the Pears and Apples that contribute the great feature of the Show, and assuredly not such a fine exhibition of these fruits have this year been exhibited. The vegetables, especially Potatoes, are also very good, and the miscellaneous groups of plants effective and fine.

For twelve large-flowered Chrysanthemums in pots (open), Mr. Turner, Slough, had plants in 9-inch pots, containing each from twelve to thirty fine blooms, the plants being 4 to 6 feet in height. Mr. G. Rundle, George Glenny, Elaine, Jardin des Plantes being very fine, and the varieties noticed in another column being very good. He had the first prize. In the amateurs' class for six plants there were four competitors. Mr. Hall, gardener to W. Stevens, Esq., Springfield, Tulsa Hill, had plants 8½ feet across and 2 feet high, each having over fifty fine blooms;

the sorts comprised Prince of Wales, Mr. Gladstone, G. Glenny, Lady Harding, Dr. Sharpe, and Mr. J. Rundle. Mr. Herrington, gardener to W. H. Soder, Esq., Clapham Park, had larger plants with better foliage; they were very massive. Mr. Brunlees, Prince of Wales, Lady Haliburton, and Lady Talfourd were very fine. Mr. Fox, gardener to O. Millington, Esq., East Combe, Old Charlton, had standard plants with 4 feet stems and compact heads 2 feet in diameter; small blooms. The prizes were awarded to Mr. Hall, Mr. Herrington, and Mr. Shepherd in the order named.

Twelve Pompons in pots (open).—Mr. Harding, gardener to Rev. W. Arthur, Clapham Common, had nice plants, some pyramidal, and some flat trained; Cedo Nulli and Antonius amongst the former, and Bob and Martha amongst the latter, being the most noticeable. Six Pompons in pots (amateurs).—In this class were five competitors, the plants varying greatly in habit and size. Mr. Fox had nice standard plants, healthy and well bloomed; Mr. Herrington, pyramids; Mr. Shepherd, small and densely-bloomed specimens; and Mr. Whittaker, large flat-trained plants. The prizes were awarded to Mr. Whittaker, Mr. Shepherd, and Mr. Herrington. The Cedo Nulli, Madame Martha, Bob, Brilliant, La Folie, Rose Trevenna, Salmon, and Andromeda were the best varieties in this class.

Single specimen large-flowered Chrysanthemums (nurserymen).—Mr. Turner, Slough, was the only exhibitor, and had the first prize for Mr. George Rundle with thirty perfect blooms, the plant being trained upright and 5 feet in height. (Amateurs).—Four competitors. Mr. Hall was placed first with a fine flat plant of Mr. Brunlees, having sixty blooms. Mr. Herrington had also Mr. Brunlees very fine, and had the second prize; third honours going to Mr. Whittaker, who staged a globular plant of Mrs. Sharpe. (Amateurs).—Three competitors. Mr. Herrington with Golden Cedo Nulli, 4 feet across; Mr. Whittaker, gardener to S. Williams, Esq., The Laurels, Putney, Arabella, 8 feet in diameter; and Mr. Shepherd with a small plant of Cedo Nulli being placed in the order named.

Cut Blooms.—Twenty-four large blooms (nurserymen), Japanese varieties excluded. Mr. Turner was the only exhibitor, and had the first prize with the standard varieties.

Twelve large-flowered Chrysanthemums (amateurs).—In this class were twelve competitors, and many of the blooms were exceedingly fine, others being small and irregular. Mr. O. Waters, gardener to A. Mongredien, Esq., Forest Hill; and Mr. Pearce, gardener to Professor Adams, Cambridge, had the largest blooms; but wonderfully compact examples came from Mr. Hall, gardener to W. Stevens, Esq. Mr. Hillier, 18, Priory Road, Wandsworth Road, and Mr. Smith, British House, Putney Heath, had admirably finished and compact blooms. The sorts comprise the standard varieties mentioned throughout our reports this week. The prizes were awarded to Mr. Waters, Mr. Hillier, and Mr. Smith in the order named.

Twelve Japanese varieties, distinct, open.—Mr. J. Hinnell, gardener to F. A. Davis, Esq., Anglesea House, Surbiton, had no competitors. He had the first prize for The Comet, The Daimio, Elaine, Red Dragon, Apollo, James Salter, The Sultan, Fair Maid of Guernsey, Bronze Dragon, Mrs. Goodlot, and Jane Salter.

Mr. Thomas Hobbs, Lower Eaton, Bristol, exhibited seedling Chrysanthemums from imported seed named Mrs. Naah, like Mr. G. Rundle.

Six Bonvardias (open).—Mr. Turner had the first prize with nice plants in 5-inch pots; the plants were about a foot in diameter, with very healthy foliage and fresh opening trusses. The sorts were Jasmine-flora, Hogarth, and Vreelandii. Second honours going to Mr. Aldous, Gloucester Road, South Kensington, who had less compact plants, but with fine blooms and trusses. Six Tree Carnations.—Mr. Turner, Slough, staged six hardy, healthy, decorative plants, in 5 to 7-inch pots. They were very clean and healthy, with handsome blooms. The sorts were Sir G. Wolseley, Amateur, Lord Dundreary, Herman Stanger, Jessica, and Balacava. They were awarded the first prize. Three pans of Roman Hyacinths, forced, the pans not to exceed 12 inches in diameter.—Mr. J. Aldous, Gloucester Road, South Kensington, was first with pans containing each about fifty spikes, and arranged in a pyramidal form; Mr. S. Lambert, gardener to H. W. Segelcke, Esq., Herne Hill, being placed second with smaller pans more thinly arranged, the spikes having very fine bells.

MISCELLANEOUS.—Messrs. Veitch & Sons' group of Chrysanthemums had remarkably fine blooms, with exuberant foliage; most striking were Grandiflorum, Apollo, The Cossack, and Fair Maid of Guernsey amongst the Japanese varieties. Mr. Turner had also a massive and fine group; he also exhibited his admirable collection of pyramidal Ivies.

Mr. B. S. Williams, Holloway, staged a beautiful group of medium-sized decorative plants comprising Cypripediums, Calanthes, Griffinia Blumenavia, Ferns, Palms, &c. Mr. Aldous also staged an attractive collection of flowering plants and Palms. Mr. H. B. Smith, Ealing, staged a group of Cyclamens, which were very good for the early period. Some of the dark colours

were very rich, and the lights pure. Mr. S. Ford, F.R.H.S., Leonardslee, Horsaam, exhibited a group of *Celosias*, very fine and brilliant in colour.

**PINES.**—Of these there is a noble display. For two Queens Mr. Scammell, gardener to C. Baily, Esq., The Priory, Tunbridge Wells, had the first honours for handsome fruits weighing 10 lbs. 6 oz.; Mr. O. Ross, gardener to C. Eyre, Esq., Welford Park, Newbury, being second with plump and well-ripened fruits; Mr. Harris being placed third for thinner fruits not fully ripe. For two Smooth-leaved *Cayennes* Mr. Jones, the Royal Gardens, Frogmore, had the first place with grand examples; Mr. Ward, gardener to T. R. Miller, Esq., Bishop Stortford, being second for fine fruits not fully ripe; and Mr. Rochford, market gardener, Tottenham, third for fine but also unripe fruits. For one fruit, any variety, Mr. Jones had the first award for a grand Smooth *Cayenne*; Mr. Scammell being second with a perfectly-ripened Queen weighing 5 lbs. 6 oz.; and Mr. Miles, gardener to Lord Carington, Wycombe Abbey, third for a handsome *Montserrat*. Mr. Jones also exhibited six splendid fruits of *Smooth Cayenne*.

**GRAPES.**—The exhibition of these is very fine. In Class 2, for three bunches of Black Hamburgs, Mr. Coleman, as usual, has the premier award for compact bunches and even and well-coloured berries; second honours going to Mr. Iggulder, gardener to C. B. Bingley, Esq., Stanhope Park, Greenford, for larger bunches, but not quite perfect in colour. Mr. Allward, gardener to T. G. Barclay, Esq., Lower Woodside, Hatfield, for nice bunches, fine berries, but not quite black, having the third prize.

In Class 19, for two bunches each of not more than ten kinds, Messrs. H. Lane & Sons, Berkhamstead, had the field to themselves, and won the gold medal with *Gros Colman*, *Foster's Seedling*, *Muscat Hamburg*, *Muscat of Alexandria*, *Gros Guillaume*, *Trebbiano*, *Alicante*, Mrs. Pines, and *Lady Downe's Seedling*, very fine in berry and colour. *Gros Colman* was fine in berry but not perfect in colour.

For three bunches of Black *Alicante* Messrs. Lane & Sons, Berkhamstead, had the first place for medium-sized bunches, with good and well-coloured berries; second prize going to Mr. Allward for larger examples; and third to Mr. Wattam, gardener to A. H. Longman, Esq., Shendish Gardens, Hemel Hempstead, also for large bunches. Mr. Munro, Potter's Bar, and Mr. Haycock, Barham Court, had handsome table fruit in this class. Twelve competitors.

For three bunches of any other kind the first prize was awarded to Mr. Wildsmith, gardener to Viscount Eversley, Eokfield Place, for very fine *Gros Colmans*; second honours going to Mr. Kniller, The Gardens, Malshanger Park, for really splendidly finished *Lady Downe's*, Mr. Coleman having the third prize for good examples of the same variety.

For three bunches of *Frontignan* or any other *Muscat-flavoured* round-berried kind Messrs. Lane & Sons had the premier prize for three fine full bunches of *Dr. Hogg*, having plump medium-sized berries.

For three bunches of *Muscat of Alexandria* Mr. Atkinson, Lookinge Gardens, Wantage, had the first place for bunches larger and almost as good in finish and quality as those of Mr. Wattam, who had the second place. Messrs. Lane & Son were placed third for good tapering bunches, but not perfect in colour.

For three bunches of any other white kind Mr. Wattam, gardener to A. H. Longman, Esq., had the first place for excellent examples of *Foster's Seedling*; Mr. Wildsmith being second for large bunches of *Trebbiano*, and Mr. Allward third for *Calabrian Raisin*.

For the heaviest bunch Mr. Wattam had the post of honour with a splendid bunch of *Alicante* weighing 10 lbs., the berries being fine and well coloured. Mr. Bannerman was second with *Gros Guillaume* weighing 7 lbs., Mr. Edwards having the third place with *Gros Guillaume* weighing 6 lbs. 8 oz. A good bunch with fine berries of *Waltham Cross* was exhibited weighing 8 lbs. 10 oz. Mr. Record exhibited fine outdoor *Grapes*, which worthily were awarded a prize.

**APPLES.**—The display here is extraordinarily large and fine. For six varieties of dessert Apples there were about thirty competitors. Mr. Bowles, gardener to W. Skinner, Esq., Maidstone, being first with *Cox's Orange Pippin*, *Count Pendu Plat*, *Warwickshire Pippin*, *King William*, *Ribston Pippin*, and a handsome *Russet* variety; Mr. Arnold, gardener to G. Wood, Esq., Rochford, Essex, being second, *Beauty of Wilts* and *Golden Pearmain* being very handsome; and Mr. Smith, Romford, Essex, third. For three varieties of dessert kind nearly forty competed; Mr. Jones, The Gardens, Elvetham Park, Winchfield, being placed first with *Almond Pippin*, *Ribston Pippin*, and *King of the Pippins*, the second prize going to Mr. Murrell, gardener to A. R. Allerton, Esq., Coleman's Lodge, Prittlewell; and third, Mr. Lumsden, Bloxholm Hall, Sleaford. For six fruit of *Cox's Orange Pippin* thirty-four competed. Mr. Miller, gardener to F. F. Friend, Esq., North Down, Margate, Mr. Holder, Springfield, Maidstone, and Mr. Coles, gardener to

A. Smee, Esq., Bridge, Wallington, being placed in the order named. Of this fine variety Mr. Turner exhibited a box of fruits of splendid colour and quality. For six fruits of *Golden Pippin* Mr. Farrow, gardener to G. Batters, Esq., Enfield, was placed first; Mr. Arnold, Rochford, being second; and Mr. Smith, Romford, Essex, third. Prizes were also offered for *Margil*, *Cockle Pippin*, *Ribston Pippin*, and *Court Pendu Plat*, for all of which there was good competition. The winners will be found in our advertising columns. For six fruit of any other dessert kind Mr. Haycock was placed first with splendid *King of the Pippins*; Mr. Head being second with the same sort, and Mr. Smith, Romford, third for *Cornish Gilliflower*.

For eighteen varieties of kitchen Apples there were twelve competitors, the first prize going to Mr. Ford, Leonardslee, for a grand and even collection; Mr. Haycock, Barham Court, being second; and Mr. Webb, Calcot, third. Nearly all these collections were of very great excellence. For six varieties there was also a grand display by about forty competitors, the first prize being won by Mr. Ford, Wrest Park, for splendid dishes of immense size and finish. Some of the prizes we were unable to ascertain, but they will be found in the official list.

**PEARS.**—In this section the display was remarkable by its extent, and from the immense Jersey specimens, and not less so for the superior examples of English-grown fruit. For eighteen dessert varieties there was good competition; many splendid dishes being exhibited. Mr. Pluck, 88, New Street, Jersey, had the first prize; Mr. Thomas, 23, Burrard Street, Jersey, being placed second; and Mr. Haycock, Barham Court, third. For six varieties there was also great competition, and many splendid dishes staged. Mr. Ford had *Pitmaston Duchess* in splendid condition, and *Beurré Clairgeau* was in grand form. Prizes were also awarded to separate dishes of *Louise Bonne of Jersey*, *Marie Louise*, *Glou Morceau*, *Duchesse d'Angoulême*, *Doyenné du Comice*, *Maréchal de Cour*, *Van Mons Leon Leclerc*, *Catillac*, and *Uvedale's St. Germain*; and many handsome dishes were staged. The awards for these, also for other classes, which we are unable to note in detail, are recorded in the advertised list.

Vegetables were well represented, and the liberal prizes offered by the enterprising firms of James Carter & Co., Holborn, and Sutton & Sons, Reading, brought out some excellent examples of culture creditable alike to growers and seedsmen. The prizes of Messrs. Hooper & Sons were not, we believe, awarded, but several piles of fine tubers were exhibited. Messrs. James Carter & Co. exhibited an imposing collection of sixty varieties of Cabbages and eight sorts of Potatoes. Mr. Ormson's new tubular boiler was exhibited, and attracted considerable notice.

The Exhibition closes this (Thursday) evening, and it is certainly worthy of extensive patronage.

**FRUIT COMMITTEE.**—Henry Webb, Esq., in the chair. A. Rawson, Esq., Bromley Common, sent a seedling Pear, which was too much decayed. Mr. Douglas, Loxford Hall, Essex, sent a seedling Apple of small size, conical shape, and smooth yellow skin, with a tinge of brown on one side. It was of excellent flavour. Mr. Bennett of Babley Gardens sent a seedling Apple somewhat like the *Blenheim Pippin*, which was not considered of sufficient merit to receive a certificate. Fountaine Walker, Esq., Ness Castle, Inverness, sent a fine fruit of *Physianthus albens*, and a vote of thanks was awarded. Sir William Hutt, Appley Towers, Ryde, sent fruit of *Diospyros Kaki*, a Japanese fruit of the size of an Orange, and a fine golden yellow colour. It was awarded a cultural commendation. M. B. Treeve, Esq., 29, Edwards Square, sent a seedling Apple called *Kensington Pippin*, a flattish yellow Apple narrowing to the crown. It was found to be unusually acid. Mr. M. G. Pragnell, Castle Gardens, Sherborne, sent a seedling Apple remarkable for its acidity. Mr. Woodford, Eastwall Park, sent a seedling Apple called *Kate Woodford*, which was not in good condition. Mr. Gilbert, Burghley Gardens, sent a seedling Apple called *Burghley Apple*, which was past its season. Mr. Matthews, Beddington, near Croydon, sent a seedling Apple of good flavour, but not of unusual excellence. Mr. Dancer of Little Sutton sent a fine dish of *Cox's Orange Pippin*, *Huyshe's Prince of Wales*, and *Beurré d'Arenberg*. Mr. Dancer also exhibited fruit of a seedling Pear raised by Mr. Wilmott of Isleworth from *Marie Louise*. It is of enormous size, and has a great deal of the appearance of *Marie Louise*; the flesh was very tender and buttery. Mr. Lock of Red Hill sent a seedling Apple which did not possess any unusual merit. Mr. Charles Turner of Slough sent fruit of *Oswego Beurré*, which was not in condition. The Hon. and Rev. J. T. Boscawen sent a box of *Cornish Gilliflower Apple* in very fine condition, which were much admired for the exceeding richness of flavour. W. E. Essington, Esq., of Bewdley, sent a seedling Pear of excellent flavour, which is somewhat similar to that of *Seckle*. It was much admired, but as all the specimens showed signs of decay at the core the Committee desired to see it another year. Mr. William Paul of Waltham Cross sent six dishes of Pears, including fine specimens of *Doyenné du Comice*, *Beurré Dumas*, and *Kingsessing*, to which a letter of thanks was

awarded. Mr. Gilbert sent specimens of his selected Brussels Sprouts which the Committee considered too large.

**FLORAL COMMITTEE.**—Dr. Kellock in the chair. The Council-room presented a very lively appearance from the fine collection of seedling hybrid *Dracenas* sent by Mr. Wills of the Anerley Road Nursery, Norwood. The plants are exceedingly creditable to the grower, and some of them are very distinct in character.

Messrs. Veitch sent a very fine collection of Orchids, and also a collection of plants, of which every one was a hybrid of their own raising. The collection of hybrids comprised six varieties of *Nepenthes*. The plants were splendidly grown and very distinct in character; they were *N. intermedia*, *N. Cheloni*, *N. Dominii*, *N. hybrida*, *N. hybrida maculata*, and *N. Sedeni*. *Calanthe Veitchii*, one of the most useful of winter-flowering Orchids, was shown in two varieties. There were also five varieties of hybrid *Rhododendrons*; *Princess Alexandra* has white flowers, *Princess Royal* delicate pink, and they contrast well with the brilliantly-coloured flowers of *Queen of Denmark* and *Princess of Wales*. *Dracena hybrida*, a cross between *D. magnifica* and *D. albicans*, has been shown previously, and well maintains its high character. *D. Taylori* was also exhibited; it has bold bronzy metallic foliage, and is very striking. Of hybrid Orchids there were *Cattleya exoniensis*, *C. Dominiana*, *Cypripedium Harrisonianum*, *C. Sedeni*, *C. Dominii*, *C. vexillarium*, *C. Marshallianum*, and *C. Arthurianum*. A fine plant of *Alocaasia Sedeni* completed the collection. This fine collection of plants were awarded the gold medal. Mr. Wills's *Dracenas* are noticed in another column, and to them the gold medal was also awarded.

The collection of Orchids from Messrs. Veitch comprised some fine winter-flowering species; amongst them was a splendid *Cattleya labiata*, the winter-flowering *Calanthes*, *Odontoglossums*, *Pleiones*, *Masdevallias*, &c., crowned with a fine *Vanda suavis*. A vote of thanks was awarded to this collection. Messrs. Veitch also sent *Cupressus Lawsoniana variegata*.

Mr. Charles Turner of Slough sent new perpetual-flowering Carnations. Sir Garnet Wolseley received a first-class certificate; a second-class award being voted to Mrs. Fowler, a fine rose-coloured flower. A beautiful golden sport of Mrs. G. Rundle *Chrysanthemum* was sent by Messrs. S. Dixon of the Amburst Nurseries, Hackney.

Mr. Denning, Londeborough Gardens, received a first-class certificate for *Cattleya Minas*. A cultural certificate was awarded to Mr. Smith, gardener to — Chane, Esq., Henley-on-Thames, for a splendidly-flowered specimen of *Vanda cœrulea*. It had sixty-seven flowers on five spikes.

Mr. R. Dean, Ealing, received a vote of thanks for a collection of *Echeverias*, and to E. rotundifolia a first-class certificate was awarded. Mr. Oroucher, gardener to J. F. Peacock, Esq., Hammersmith, also received a first-class certificate for *Echeveria pachytoides*.

From the nurseries of Messrs. Wm. Paul & Son of Waltham Cross were sent a splendid collection of sprays out from hardy trees and shrubs to illustrate the autumnal tints; many were ornamented with berries. With them was sent a basket of *Euonymus flavescens*, a new golden winter-bedding plant. It is one well adapted for that purpose.

### TOBACCO.

THOUGH *Nicotiana rustica* is indigenous in Western Asia, yet it is considered indisputable that no tobacco was smoked in the Old World before the discovery of the New. It was, therefore, with great astonishment that I read, in a work of Bunsen's, a quotation from the sayings of Buddha, as printed in the Memoirs of the Academy of St. Petersburg, wherein that sage, who lived five centuries before the Christian era, speaks of a man smoking tobacco. As the matter deserved probing, and as the respectability of the source from which the assertion proceeded made the error, if such it were, only the more likely to obtain currency, I wrote to Max Müller, as the best living authority, requesting him to consult the original. He replied, "There is no trace of tobacco in the original, nor even of smoking, but simply of incense."—G. S.

**GRUBS IN CARROT AND ONION BEDS.**—We had an early visit from the grubs this year, and lost thousands of young Onions before they were noticed. As soon as they were seen the beds were covered over nearly half an inch thick with soot, then thoroughly watered, and I have seen no grubs since.—F. S. C. S.

### NOTES AND GLEANINGS.

ONE of the finest specimens of that excellent *PEAR DOYENNE DU COMICE* which we have ever seen has been sent to us by Mr. G. F. Wilson of Heatherbank, Weybridge Heath. It

was 11½ inches in its latitudinal circumference, and exactly a foot in its longitudinal. This was grown on one of Mr. Wilson's orchard-house trees, which during the blooming and setting period are kept in the orchard house, but the fruit was ripened out of doors in the open air. It was most delicious.

—We have received from Mr. George Haskell of Ipswich, Massachusetts, a collection of ten varieties of SEEDLING GRAPES, raised by crossing the native *Vitis riparia* with European varieties, and *vice versa*. These are very curious, and some of them are very excellent varieties. The influence of the cross is very apparent in all of them, and it is quite possible that in this way varieties may be raised that will ripen out of doors in this country. Even in this unfavourable season Admiral Hornby has ripened one of the American Grapes at the Cottage, Knowsley, and Mr. E. J. Beale has been equally successful at Twickenham. One or two varieties which have the Black Hamburg and White Chasselas for their male parents are very good indeed, and have a flavour which is quite peculiar.

—M. EDOUARD MORREN has published the third edition of his "CORRESPONDENCE BOTANIQUE," which is a list of the Botanical Gardens, Professorial Chairs, and Museums throughout the world. It is a valuable and useful aid to botanical correspondence, and is wonderfully correctly and carefully prepared.

—We have received from Messrs. William Maule & Son of Bristol a portion of JAM made from the fruit of *Pyrus Maulei*. We remarked the excellency of this new preserve when we tasted it the first year that the plant was exhibited at the Bath Show. Good as it was then, it is certainly better now, experience in the making of it having perfected the process. It is quite a new flavour, is rich without being cloying, and has a fine, brisk, acidulous smack, which will make it very acceptable for many purposes in domestic confectionery.

—We have the pleasure to announce that Mr. JOHN INGRAM, of the old-established firm of Wood & Ingram, nurserymen, Huntingdon, has been unanimously elected to the office of Mayor of Huntingdon for the coming year.

—AN American paper says—"I do not molest the birds; instead of shooting them or setting up scarecrows to frighten them away, I throw out every possible inducement for them to build their nest in my fruit trees. The birds capture a large share of the insects in the larval state. For the residue of the insects which infest my vegetable garden I find that the laboratory of the chemist furnishes materials fatal to them all, among which materials white hellebore and cayenne pepper are of the most utility; the bug or grub which cannot find vegetation unflavoured with these articles will seek its breakfast elsewhere, and leave my garden unmolested. A few drops of carbolic acid in a pint of water will clean house plants from lice in a very short time. If mosquitoes or other bloodsuckers infest our sleeping rooms at night, we uncork a bottle of the oil of Pennyroyal, and these insects leave in great haste, nor will they return so long as the air in the room is loaded with the fumes of that aromatic herb. If rats enter the cellar, a little powdered potash thrown into their holes, or mixed with meal and scattered in their runs, never fails to drive them away. Cayenne pepper will keep the buttery and storeroom free from ants and cockroaches. If a mouse makes an entrance into any part of your dwelling, saturate a rag with cayenne in solution and stuff it into the hole, which can then be repaired with either wood or mortar. No rat or mouse will eat the rag for the purpose of opening communications with a depot of supplies."

### CULTURE OF PHALÆNOPSIS.

THE culture of Orchids has been very much extended during the last ten years, and their management is more generally understood by gardeners and amateurs, so that these quaint, interesting, and beautiful flowers are to be seen and admired in most gardens, including many of very modest pretensions. Nearly the whole order is amenable to ordinary cultivation. There are, however, a few species, or even an entire genus, that will occasionally baffle the skill of the most ardent cultivators, but unless it is desirable to grow these difficult subjects to complete a selection, or for some other purpose, they are best let alone. There is no need to trouble about them, as there are hundreds of species and varieties of the greatest beauty that can be grown without any difficulty.



The cultivator must first ascertain what are the requirements of his plants, and their wants, which are few and simple, must be attended to at the right time. There are three degrees of temperature in which nearly all Orchids may be grown. The first and most simple is the cool house, in which an extensive and most beautiful section of Orchids may be cultivated. The minimum temperature of this house may be 45°, or it may fall to 40° during the winter months without any injury to the plants. The next is the Cattleya or Brazilian house with a minimum of 50° to 55° during winter; and the East Indian house with a minimum of 65°, or in cold weather 60°. The maximum temperature for the above is 5° to 10° higher.

One of the main elements of success in Orchid culture is the arrangement and efficiency of the ventilation; let the biting east wind blow for a few hours directly on even the hardiest species of the cool-house section, and the chances are that the plant will be utterly ruined. I have seen a *Masdevallia* cut over as if with a knife by the wind blowing directly upon it through a narrow opening. The plants require plenty of fresh air, but the ventilation must be arranged so that the currents of air pass on to the hot-water apparatus before being diffused through the house, and when this is the case air may be admitted every day even during winter; indeed, some of the best cultivators have small openings in the side walls, generally about a foot or 18 inches from the surface of the ground, an and day.

The genus *Phalænopsis* requires a house, and one thing greatly in that the plants occupy a very small space are produced in great abundance are now upwards of a score of genera, a few of them at least hybrids, and here Nature herself of the most experienced cultivator. Some of the most skilful Orchidists the different species of *Phalænopsis* time all their efforts have been worth while to notice all the very rare and likely to be so, nor a sort at all to be compared to common species.

The plant that I would place first, and of this there are several in the size and formation of the lip are purchased that have not Borneo with large leaves and flowers are the largest of all the *Phalænopsis* base or centre of the lip being conspicuously marked with yellow or orange. Next to the above comes the queen of Orchids, *P. amabilis*, from Manilla; the flowers differ from those of *P. grandiflora* in being smaller, and the lip instead of being stained with gold is marked with rose or pink. Next in order of merit is *P. Schilleriana*, another Manilla species. This is very distinct, and has large, handsomely variegated foliage. The leaves are olive green, barred and mottled with creamy white. It is also one of the most free-flowering. The flowers are produced on long branched spikes, as many as a hundred or more flowers having been produced on one spike. This species flowers earlier in the season than the two already named; indeed, all of them have a tendency to throw-up their flower spikes early in the year, but if the spikes of *P. grandiflora* and *P. amabilis* are pinched others will be formed later, and the flowering season is thus retarded.

It will not answer to stop the spikes of *P. Schilleriana*, as, unlike the others, this variety will not form a second spike, and a season would be lost. This would be one of the most selling exhibition plants but for its early-flowering propensity:

it is seldom to be seen in flower after May. The above-named species are by far the best for ordinary cultivators; they are easily grown, and are moderate in price.

A new species was introduced last year which is, no doubt, a natural hybrid between *P. Schilleriana* and *P. amabilis*. As I have seen it, it is certainly inferior to either of its parents. The leaves are slightly barred and mottled, as *P. Schilleriana*, and the flowers are between the two in size and colour. It has been named *P. leucorrhoda*. *P. intermedia* is also said to be a hybrid, and all of them are, no doubt, interesting and very pretty.

The mode of culture pursued by different growers is very

Fig. 92.—*Phalænopsis amabilis*.

different under the same circumstances. To be successful a high temperature must be kept-up, with plenty of atmospheric moisture, which is obtained in winter by sprinkling the paths and stages with water two or three times a-day, and in summer this is supplemented by having troughs filled with water placed over the hot-water pipes. The plants seem to thrive best when they are placed near the glass, and they also grow most freely if planted in baskets. These need not be described here, as a drawing and description of a suitable basket is given at page 339 of the present volume.

The manner of basketing the plants may be briefly described. A few large pots or sherds are placed on the bottom, then some pieces of a smaller size to fill the basket three parts of its depth, the remaining portion being filled-up with live chopped sphagnum and pots or sherds in equal proportions. The roots of the Orchid are just covered, and the plant is put-in in such a way that the leaves hang over the side of the basket. Until the roots make a start water is applied very sparingly,

only just enough being given to keep the sphagnum alive. The leaves during the summer may be lightly dewed over with a fine syringe every morning. When the plant has started into growth water may be freely applied with the syringe, and if the proper temperature has been kept up, and the atmospheric conditions are suitable, both sphagnum and plant will grow freely. The roots twine round and into the basket, and they cannot come into contact with decaying organic matter, which invariably causes decay. The baskets are suspended so that the plants are about 18 inches from the glass, and they also ought to be placed in the most shady part of the house.

Phalænopses cannot bear sunshine. The shading material, which ought to be made to run up and down, must be ready for use from March until the end of October. These plants are also adapted for pot culture; liberal drainage must be used, and the plants ought to be elevated above the rim of the pot. I have seen them do well with a compost of equal parts very fibry peat, sphagnum, and potsherds.—J. DOUGLAS.

### STRAWBERRIES.

I HAVE received to-day (November 6) seven fine and well-crowned plants of *La Constante* and five equally well-crowned plants of *Ne Plus Ultra* from Mr. Lovell, who explains that his plants are struck in June and planted out after the heat of summer is over. His land is evidently of a first-class nature, and I should say that such plants in favourable springs would bear a good crop of Strawberries. His mode of culture is good. I had *La Constante* and *Ne Plus Ultra* (*De Jonghe*) some years ago. The last is a fine cropper, good market sort, fair flavour, and often of conical shape. To the general public I recommend *Lucas* (*De Jonghe*) in preference to *La Constante*. *Lucas* is not, perhaps, quite equal to *La Constante*, but it has these points of superior excellence: it is a quicker rooter, stronger plant, does not suffer under sun, and is larger in the berry. It neither suffers from frost nor sun. *La Constante* is hardy as regards winter, but suffers under hot sun.—W. F. RADCLIFFE.

### CHRYSANTHEMUMS AT CHELSEA AND SLOUGH.

BESIDES the public exhibitions of this important autumn flower which are now being held there are private collections which demand notice by their excellence, and which are worthy of inspection by all who are interested in the cultivation of these plants. Two of these collections, amongst others which we know to be worthy of patronage, are those of Messrs. James Veitch & Sons, the Royal Nurseries, Chelsea, and Mr. Charles Turner, the Royal Nurseries, Slough. We first visited, therefore will first notice, the display of Messrs. VEITCH AND SONS. These consist of nearly 500 plants arranged in a spacious span-roofed house; and we know not which to admire most, the sturdy vigour of the plants with foliage fresh down to the pots, or their noble blooms. The plants are in 10 to 12-inch pots, grown on single stems, each plant having three to six flowers which are just approaching perfection, and which will be in good condition for the next ten days. We note a few of the best and which may be considered as standard varieties—those that are uniformly good, and which may be grown with confidence as possessing sterling merit.

White Globe and Empress of India are splendid, the blooms being of unusual depth and substance, and there are immense blooms of Alfred Salter, Prince of Wales, and Beethoven, Fingal has perhaps never been finer, and Bronze and Yellow Jardin des Plantes are remarkably effective. Mr. George Rundle and its fine sulphur-coloured sport George Glenny are, if not the largest, two of the most perfect and constant varieties, and which are very finely finished. The Beverleys—yellow and white—Pink Perfection, White Venus, Guernsey Nugget, Nil Desperandum, Gloria Mundi, are also very fine; and equally good but smaller are Aurea Multiflora, Duke of Roxburgh, John Salter, and Abbé Passaglio.

Some of the Japanese varieties are also particularly gay. Elaine, however, is fading, but its place as a white is well filled by Fair Maid of Guernsey, which is fully as long in the petals, although somewhat looser than the above-named variety. Cry-Kung, bright mauve, is very attractive, as also is Red Dragon. Gold Thread, the new Japanese sort, is not yet expanded, but The Cassack is very gay in its garb of crimson scarlet.

There are also several nice standard plants of Pompons, one of which, Acme of Perfection, is as perfect in the blooms as

it is chaste in colour. As a variety for affording out bloom it is invaluable, while it is equally suitable as a decorative plant. The blooms are exceedingly double, and each petal of rosy pink is margined with white. Altogether the collection is very good, the plants being stout and short-jointed, and the foliage to the eye of the practical grower is as attractive as the bloom.

Besides the Chrysanthemums several beautiful Orchids are in bloom, as Vandas, Cattleyas, Pleiones, Calanthes, &c., and these with other collections of ornamental plants, and the perfect order and cleanliness which pervades the establishment, renders a visit "to Veitch's" at the present time particularly enjoyable.

Very different in character but not less imposing, is the collection of Mr. TURNER at Slough. The display here occupies a house 100 feet in length and 12 in width, which is filled to repletion by all the best varieties. These plants are not grown specially to bring out the individual size of the blooms by limiting their number to two or three on a plant, but some of the plants have each over twenty flowers; and these, considering their numbers and the smallness of the pots employed, are evidence of superior skill in culture, and are splendid examples of decorative plants where numbers are combined with quality.

Mr. George Rundle and George Glenny are here in grand form, and Nil Desperandum for size and symmetry would be difficult to excel. Elaine by its flowing fleecy purity is most attractive, and such plants as are grown here would be a great acquisition to any conservatory. In striking contrast to the whites mentioned is Dr. Sharpe, maroon, and not less effective are the bright crimson masses of Julie Lagraviers, which, although the flowers are flat and small, is yet one of the most useful sorts, by its high colour and free-flowering properties affording a fine supply of out blooms. Bifeman, St. Patrick, Prince Alfred, and Empress of India have perfected noble blooms, and the other standard sorts enumerated above are in admirable condition.

A striking feature in this collection is the smallness of the pots in which most of the plants are grown. Many plants there are containing half a dozen blooms, full, deep, and perfect, which are grown in 6 or 7-inch pots; and how handy and useful such plants are all know whose duty it is to provide ornamental groups for conservatory and other purposes of decoration. By rich feeding and unremitting attention to watering Mr. Turner has well shown the resources of the Chrysanthemum, and has evidently succeeded in obtaining a maximum amount of beauty out of a minimum bulk of soil. The collection is highly worthy of inspection, as are other specialities of this nursery.

The Carnations, of course, are not in bloom, but what a forest of fine layers are now being potted! This work alone will occupy some weeks. Surely there must (as there should) be an increasing demand for these beautiful florists' flowers, and evidently their constant patron is determined to keep pace with it. It is now tree, shrub, and Rose time here, but it would be superfluous to detail the condition of the stock; but it is impossible to pass by unnoticed the fine breadth of the Caucasian Laurel (*Cerasus caucasica*). It is richer, denser, deeper, and hardier than the common Laurel, and must shortly supersede it in all shrubbery plantations. To denote the general condition of the nursery would be to repeat the "old, old story;" it can be summed-up in one word—"Turner's."

A notice of the display at the Pine Apple Place Nursery is postponed until next week.

### A POTATO GRAFTED WITH THE NIGHTSHADE.

A VERY interesting experiment has been made by Mr. Alex. Maule of Bristol, for the purpose of ascertaining what effect a transfusion of the essence of the native *Solanum nigrum* into the constitution of the Potato by grafting would have in preventing the Potato disease. The common Nightshade, it is well known, resists the disease. Mr. Maule conceived that by getting the foliage of the European plant on the Potato that the latter would escape the disease, and he found by experiment his expectation realised. He grafted the one on the other, and the result is before us in an excellent photograph which shows the perfect union of the two species, and the stock plant furnished with a large tuber.

Now Mr. Maule does not intend from this experiment that the whole Potato crop is to be grafted in this fashion. His experiment was intended merely as a test to solve a theory

which was floating in his own mind, and it was a successful one. But it may be pushed a little farther than Mr. Maule has carried it. We all know that in many instances the scion influences the stock as greatly as the stock does the scion; and we see no reason why there may not be a graft-hybrid produced in this case as in many others which would have the power of resisting the disease. The transfusion of the essences of distinct plants is not conveyed exclusively by the pollen grains; and we believe it quite possible, by frequent repetition of the grafting experiment, to change in some important respect the constitution of the cultivated Potato so as to render it more disease-resisting.

It will be very interesting to know what the result of this experiment of Mr. Maule's turns out. We hope Mr. Maule has preserved the tuber with the intention of planting it next season. It would be well to cut it into sets and graft some of the plants produced from these with *Solanum nigrum*, leaving others in their normal condition.

### OPEN STANDARD OR BUSH PEACH AND NECTARINE TREES.

ALLUSION having been made to the growing of Peaches and Nectarines on open standard, or rather bush trees, and cases mentioned where fruit has ripened during the past season on such trees, it would be well to take a retrospect of the past and ascertain what has been attempted in this way in years gone by, and we may possibly be able to form a tolerable correct judgment of what is likely to be accomplished in the future.

Fine warm summers, which now and then occur, favouring the growth and maturing the fruit of many things that do not generally approach that condition in ordinary years, usually tempt the inexperienced into the belief that because they have ripened Grapes against a wall and Peaches on open standards these fruit can always be done so. This is a mistake. These fruits require more sun than the average temperature which our summers afford, and it is only on those very warm seasons that they really ripen well, and it is questionable if they are in reality as likely to do so in a general way as they were a century or more ago. An occasional hot summer or two following each other may be adduced as evidence against this; but two or three years is not sufficient to found a conclusion upon. I well remember the dry sunny seasons of 1857, 1858, and 1859, the last two especially being thought half-tropical, and it was imagined that many fruits and plants would flourish in the open air that are but rarely met with under that mode of culture. Pine Apples were tried in more places than one and reported favourably of, and some sanguine spirits went the length of asserting that England might be independent of foreign countries in the matter of the port and sherry consumed; while Sorghum and other half-tropical green foods were to take the place of those in common use amongst farmers, and certainly some very fine growths of the latter plant in the summer of 1859 did promise well of it; but, alas! the cold wet season of 1860 set aside all expectation of this and other plants becoming generally useful, and the ripening of Peaches and Grapes was out of the question altogether. For some years after this ungenial summer it was urged that Peaches could not be depended on anywhere except under glass, and an impetus was given to the erection of orchard houses, and we have since heard but little of standard trees of the kinds named until the present fine autumn has in a measure revived the subject again by some fairly good fruit having been produced on such trees in favourable situations. Although the cultivation of the Peach as an open standard tree has been recommended I would hardly advise anyone planting a whole orchard of such trees, for the seasons in which they succeed will come so seldom that I fear the disappointments would far exceed the successes.

I think it was about 1858 or 1859 that Mr. Ilman, a nurseryman at Strood near Rochester, ripened Peaches and Nectarines on open standards in his nursery, and pyramid Peach trees for gardens as well as for lawns were strongly recommended at that time. In the latter position they were expected to be equally ornamental in spring while in flower, as they would be useful later on when ripe fruit greeted the eyes of the owner or visitor. But somehow they have never become popular, and I believe what few were planted have produced but little fruit, and have fallen short of the ornamental character expected of them, the growth being irregular and at times ram-

phant, while the difficulties in protecting the fruit blossom from the spring frosts was so great that comparatively little reached the ripening period, and that little has been small and undersized; that there is certainly but slight encouragement to embark extensively in planting many trees of the character named, although by way of experiment, and in a favourable site, the practice is worth trying on a limited scale.

While on this subject I may ask, What success has attended the cultivation of two other fruits of different habits, but each requiring something different to the treatment given to our ordinary hardy fruits—namely, Figs and Apricots? Many years ago—I think it was about 1856—I planted several young Apricot trees in what I thought was a favourable situation, and they grew and flowered very fairly, but I never obtained much fruit from them. About that same period I ceased pruning or doing anything but now and then fastening up a large limb against the wall of two large Fig trees, and they now straggle across the border, and in favourable years produce good fruit; that near the ground on the branches resting upon it being as good as on the top of the trees. I should be glad if those who have been successful in the growth of these two fruits to be good enough to give us the particulars of their practice, more especially if they have succeeded in perfecting them without the aid of walls.—J. BOBSON.

### THE POMEGRANATE OUT OF DOORS.

In an interesting article on the above in your issue for October 14th, page 388, it is stated that this plant does not produce fruit in this country. Perhaps, therefore, it may interest you as well as others to know that a plant of the *Punica granatum* bears fruit annually here, which in some favourable seasons fairly ripens.

I have forwarded you some specimens of this season's growth, but I would mention that those sent are not nearly so ripe as we usually have them, in fact all the fruit that is on the plant has set since the third week in August; neither has the fruit been so plentiful nor the flowers so abundant as in former years, which can be accounted for by the excessive fall of rain we have experienced here this season. The growth of this plant, or what I will term the breastwood, in ordinary seasons is from 9 inches to a foot in length, whereas this season it is more than double that length, and much stronger than usual.

The plant in question is growing against the kitchen wall, which has a south-west aspect, and is well sheltered. The soil is a light sandy loam, which no doubt is greatly impoverished by its close proximity to some large Hollies and other shrubs. The subsoil is sand. It has grown to the height of 52 feet, and covers the wall 24 feet in width. On the highest part the largest quantity of flowers are produced, and only at the extreme points fruit is perfected.

This plant fully corroborates all that you have stated as to its requirements, which are a warm sheltered site, with a poor light well-drained soil.

At a short distance the Pomegranate has the appearance of a Myrtle, and I have heard many a visitor at first sight exclaim, "What an immense Myrtle you have here!" Such was the exclamation of one lady in particular last season; when a second rejoined, "Its great size is not its only novelty, as it actually bears scarlet flowers and fruit."—THOMAS FOOTE, Gardener to Sir Arthur Elton, Bt., Clevedon Court, Somerset.

[The specimens sent were small, but one was nearly ripe.—EDS.]

### HARTHAM PARK,

THE RESIDENCE OF WILLIAM HENRY POYNTER, ESQ.

If we pursue the Bath road for about three miles west of Chippenham it brings us into the parish of Corsham, a wide-extending parish embracing many hamlets, one of which all must pass through on their way to Bath—viz., Pickwick. I notice this to correct a very general but erroneous impression that Charles Dickens took the name of the hero of his first important work from this place. The tale goes that putting his head out of the window of the coach on his way to Bath he asked what was the name of this place, and received for answer "Pickwick," and that the jingling rhyme of the word caught his ear. This, however, is only a case of "as the story goes." The truth, according to Mr. Foster, is that Dickens saw in Pileadilly the Bath coach with the name of "Pickwick, proprietor," upon it, and that the name hit his fancy. Indeed, though Dickens visited Bath in later years almost annu-

ally to see Landor, he had, it is believed, never been in Bath until after he wrote *Pickwick*, and that the scene in that work descriptive of characters in the Assembly Rooms owed its origin not to personal experience, but to the force of imagination, which gathered the materials out of common rumour. But on the Bath road lies *Pickwick*.

Close by, turning off to the right, is Hartham Park, in the county of Wilts, owned by William Henry Poynder, Esq., Lord of the Manor of Hilmonton in the same county, one of a family long known and respected in North Wilts for their untiring efforts in doing good, and for munificence to the poor and needing. Some gentlemen of high position and wealth are respected—this is much; but there are a select few who attain to something higher—viz., who are loved as well as respected, and such is the most enviable position of the squire of Hartham.

The Hartham Park estate has passed through many hands,

as is the case with most properties. Hartham is mentioned in Domesday Book six times under the name of "Heartham." In about A.D. 1400 it belonged to Henry de Hartham; in 1640 it passed to the well-known Wiltshire families of Goddard and Duckett. The former owned the present Hartham Park and Rudlow, and their house stood on the site of the ~~present~~ mansion. The residence of the Ducketts, which stood near, close to the present stables of Hartham Park, was taken down some years ago. Lady James, widow of a Sir William James, a director of the E. I. Company, built the present mansion—that is, the older part. Hartham was purchased by the first Lord Methven, but sold afterwards to the late Mr. Thomas Poynder, who built so largely, making such considerable additions in 1860, that from simply a country gentleman's residence Hartham Park became a large and imposing-looking mansion. The interior contains pictures of great value, and the library is rich in rare copies of works splendidly bound.

Fig. 9A.—HARTHAM PARK—WEST-RED VIEW OF THE MANSION.

Hartham is somewhat connected with English literature. Thus, the Lady James mentioned was a friend and correspondent of Laurence Sterne; and Edmund Smith, a friend of Steele and Addison, author of "*Phædria and Hippolytus*," and translator of "*Longinus on the Sublime*," died at Hartham in 1709. The father of Lord Broughton, Sir Benjamin Hobhouse, lived at Hartham House. The readers of Lord Byron's works will remember Lord Broughton, then Sir John Cam Hobhouse, as a friend of the poet's. That amusing gossip, John Aubrey, has a word to say about Hartham, for he thus writes:—"It is said that the conigre (rabbit warren) here turns the breed of black conies white, and its pasture grounds make the breed of black cattle pied;" but he shrewdly adds, "Let him that knows this believe it," but goes on to say, "The rest of the country hereabouts is much inclined to pied cattle, but commonly the colour is black, or browne, or deepe red. The men and women strong, and something warme and well coloured, a drawing speech something heavy and melancholy, as under Saturn."

One fine afternoon this autumn found me on my way to Hartham Park. Leaving Corham Court on the left I soon turn to the right, and pass near to Hartham Episcopal Chapel, built by the late Mr. Thomas Poynder for the place of worship of his family and dependents, and the inhabitants near. This was a kind act, as Corham parish church lies too far off to benefit the aged and infirm. Oh, would that other large

owners would do the like! Entering the park gates and following the course of a well-planned meandering approach I am soon at the east or front entrance of the house, wondrously enlarged and improved since I knew it first. The view from the front door is somewhat blocked by a clump which was planted to screen the house from the road, and which has now grown over-large. This could easily be remedied, as a much lower screen would keep the road from view, and the noble Elms around would stand out in their full beauty. The Elm is well called by John Evelyn "the Wiltshire weed."

The head gardener, Mr. Thomas Carter, formerly under Mr. Fleming at Trentham, is at hand to show me, by Mr. Poynder's kind permission, everything that is to be seen. We pass to the flower garden on the south side of the house, a plan of which is engraved. This garden is somewhat sunk, and wisely, to avoid the strong westerly gales, and is overlooked by the drawing-room and library windows. The plan of the garden suits the house, and the planting shows Mr. Carter's good taste. Passing along this garden I ascend by steps to the terrace garden, a garden wholly on grass, from which the beds below tall wall. Ascending some more steps I come to the top lawn, a spacious smooth-shaven turf, out of which rise well-kept trees and shrubs. Two splendid Cedars of Lebanon cast their deep layers of shade around, making a fine contrast to the light and graceful Tulip Trees near, and with the hand-

some Horse Chestnuts grown naturally—that is, with their lower branches touching and lying on the grass. Those who only see these trees as usually grown can have no idea of the added beauty when the lowest boughs are as these are.

Besides the trees and shrubs on this extensive top lawn there is one object of particular interest, a copy of the famous Warwick vase cut in one solid piece of Box stone, which when hewn was over 10 tons in weight. This is unfortunately placed too much on one side; whereas, did it stand just in the middle where is now an old Ash it would overlook the two lower gardens, and would form a fine object to look up to, and serve as a connecting link to the eye with the house.

Passing, or rather strolling, along this fine lawn I come to the Beech walk, a very dangerous place indeed for young people to enter, being highly suggestive of engaged rings. Not far off is one of several summer houses, but this one I notice is on an artificial mound, placed there for the view. Where

stands the mound was a pit, which the late Mr. Poynder had filled up and the summer house put on its apex. I thought what a good thing such alterations are for the poor, as bringing to them many days of labour and labour's recompense—wages. How much good people of fortune often do by alterations, which give employment! how much more good is done in this way to the poor than by almsgiving! I now take my leave of the pleasure grounds, just observing in passing that as the finely-undulating and beautifully-wooded park is only separated from these by an iron paling, the idea of space is given, and all cramping quite avoided.

Next comes the kitchen garden, in which, in itself, is nothing remarkable, but in it stands the conservatory, which with the fernery is 70 feet long and 28 feet wide, and the height of the lantern 24 feet. The stove, conservatory, and fernery (one building) is in three compartments. This structure is very elegant. Up its slender pillars run various bright-coloured

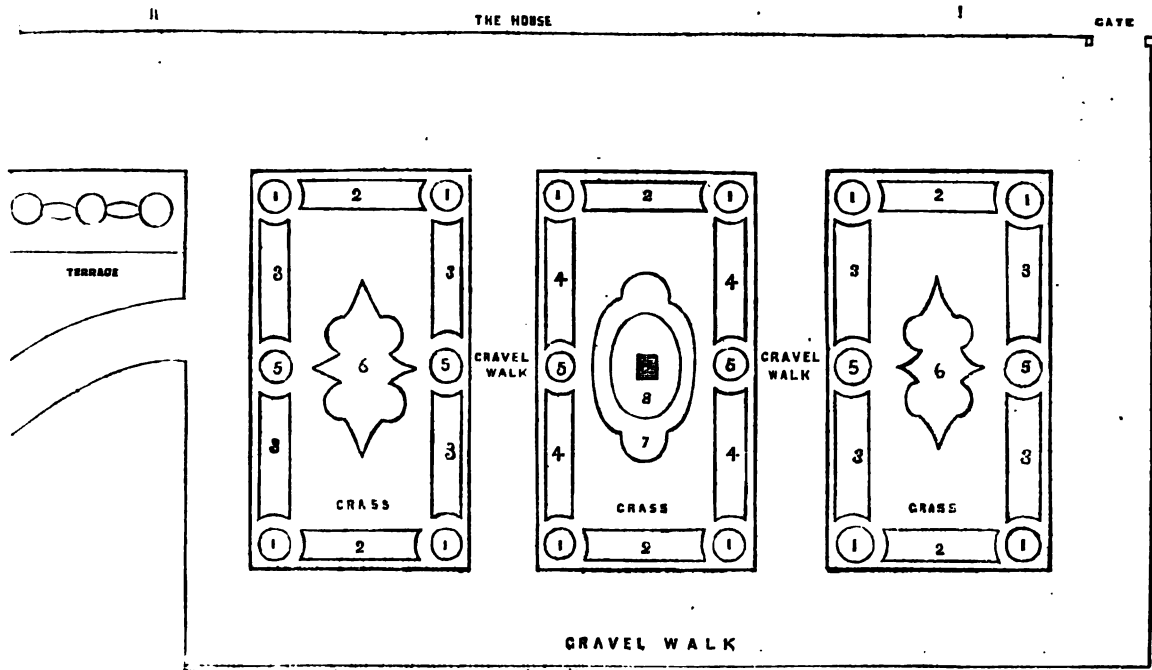


Fig. 94.—FLOWER GARDEN AT HARTHAM PARK.

1. Blue Lobelia, edged with Mrs. Pollock.
2. Pelargonium Stella, edged with Golden Chain.
3. Pelargonium Tom Thomb, edged with Silver Chain.
4. Pelargonium Christina, edged with Silver Chain.
5. Alternanthera, edged with Golden Pyrethrum.

6. Centre Iresine, with white and purple Verbena, edged with Mesembryanthemum.
7. Pelargonium Rollison's Unique, edged with Golden Pyrethrum.
8. Grass. Centre vase.

creepers, and crossing high up from pillar to pillar they hang in festoons. Tacsonia Van-Volkemi was there in its beauty, and the Lapageria rosea with its gorgeous bells. There, too, were Bignonias and the Allamanda cathartica with its striking yellow flowers. The centre compartment is the conservatory, the other compartment the fernery. There was the Thunbergia Harriadi; the Golden Fern in its gorgeousness, with Adiantum Farleyense, and many others of magnificent growth. In this stove conservatory and fernery what particularly struck me was the healthiness of every plant and the admirable way in which all were kept. In the stove division I noticed a fine plant of Hibiscus splendens with its intense carmine-scarlet centre.

Next in order come the vineries. The length of the large vinery is 80 feet, its width 21 feet. The height of the back wall is 28 feet, with a half-lantern top. This is a grand vinery, and it was a pleasing thought to know that not only on its hospitable owner's table its beautiful Grapes appeared, but they reached many a poor invalid's lips, and their grateful moisture comforted those almost past earthly comfort. The vinery is in four compartments. The first contains Pope's Hamburg, Lady Downe's Seedling, and that troublesome Grape to grow in many soils, Mrs. Pinee. In the second compartment I found Muscats of Alexandria with splendid berries. This house is heated by six rows of 4-inch pipes. In the

third division again Muscat of Alexandria, in the fourth the Muscat Hamburg and Black Hamburg. Besides this large vinery is a small one 37 feet long, half-span roof, with eight rows of pipes. I saw, too, another kitchen garden chiefly devoted to fruit of about an acre in extent, with its Pear crop a sight to see.

I next come to a very noteworthy part of Hartham Park gardens—viz., the frames, with offices and sheds around it. I remember looking once through the house of a gentleman famous for giving good dinners, and being struck with the exceeding smallness and inconvenience of the kitchen and adjoining offices. I remarked upon this, and pitied the cook. So also in visiting some extensive and well-kept gardens I have often noticed that the offices for the gardener's use—tool houses, potting sheds, &c.—were like the small kitchen for the cook, and I pity the gardener. This, however, is not the case at Hartham Park, but quite the contrary. The gardeners' kitchens, so to speak, are on a grand scale. Imagine half an acre and more of an oblong form, with the centre made into a cold-frame yard, with offices, sheds, &c., on one side and end, the other side and end devoted to wall fruit and houses. Here I found half-span houses over 100 feet in length, divided into four compartments. First is the winter forcing house, second is devoted to Pines and Cucumbers, third to Cucumbers, fourth to greenhouse plants. Next is a Peach house 37 feet long, half-

span. The patent heating apparatus in this yard was the work of Messrs. Cubitt. The quarter of an acre of frames in the centre before mentioned are as to material of good workmanship, the wall plates of teak with galvanised sashes. The frames, as to use, can hardly be over-estimated. What grand feeders to a conservatory! What salads! What bedding stuff! What winter stuff! What Melons! What Strawberries! Why, the open storing shed at the end of the yard is about 80 feet long, in which everything not wanted can be placed at once; not a wheelbarrow need be left out in the wet, nor a disused frame left about looking untidy. Indeed, this yard and its buildings around would gladden any gardener's heart. On the side where the buildings are I find the Mushroom house, slate fronts on cast-iron pillars, and the bottom perforated tiles. I enter the boiler house, and Mr. Carter tells me that Cubitt's patent boilers answer perfectly, heating some thousands of feet of pipes. In the tool house I find perfect order. A notice is printed up, "A place for everything, and everything in its place," and that notice was evidently obeyed in letter and spirit. The potting shed was large enough for a school-room, and the arrangements of the fruit room seemed good, and the fruit in excellent condition. So of the seed room. Lastly, I peep into a second boiler house. The range of offices above described are, as to length, about 210 feet. Such is the frameyard and the buildings around. Instead of everything being old-fashioned and in a half-ruinous state, here was everything new, good, and built on the best principles, and reflecting great credit upon the architect, Mr. Hardwick. Mr. Carter tells me he has been at Hartham about ten years, and that he works with a staff of eight men under him. He has evidently his heart in his calling, and well knows what to do and how to have it done.

Having taken a general glance round I now turn my pony's head towards the Bath approach, and proceed onwards towards the entrance known as Budlow Gate. As I drive on for probably a couple of miles in the park I have a fine view of its undulations and timber, while far away the eye takes in a grand landscape, with what painters so much love, a telling middle distance, the country towards North Wraxall and Colerne standing out in bold relief.

Such is but a slight sketch of Hartham and its surroundings, and I will take leave to add a sincere hope that its kind and generous resident, who has become its possessor but recently, may be spared many years of health and happiness.—WILTSHIRE RECTOR.

### FROST IN LINCOLNSHIRE—WORMS IN FLOWER POTS.

THE remarks of "J. H." headed "Frost in Aberdeenshire" attracted my attention and caused me to refer to my weather diary, and strange to say the reading of the thermometer here on the 11th and 12th of October tallied exactly with the statement given by "J. H." (see page 877)—viz., 6° and 7° of frost. French Beans and Scarlet Runners were killed, and Dahlias and other tender plants partially destroyed.

Respecting soot for preventing worms entering flower pots, I can corroborate all Mr. Douglas has said on that point, as we have frequently used it for the same purpose with good results.—G. R. ALLIS.

### VINES AT OSMASTON MANOR.

YOUR correspondent "J. W." has either been wrongly informed or he is under a false impression with regard to the supply of Grapes and the uses to which the vinerias at Osmaston Manor were put in former years. Having known the place intimately from early in the year 1853 to the end of 1872, and, moreover, having had the management of it for ten years down to the latter date, I am in a position to speak of what was done during that time, and I emphatically deny that the Vines were grown only, or principally, to afford shade for the specimen Orchids. The primary use of the vinerias was to grow Grapes; and although from their peculiar proportions and construction those vinerias were difficult to manage, yet I can say without hesitation that the table of the late proprietor was invariably well supplied with Grapes seven months in the year, which was about as long as the supply would last, the demand being heavy and constant; and in my time I have cut scores of bunches of well-finished Hamburgs weighing from 2 lbs. to 4 lbs. 13 ozs., as well as smaller bunches.

Whether the late owner thought most of his Vines or his

plants would, perhaps, be a difficult point to decide now, but I know that he was as particular and as critical about his Grapes as he was about his plants or anything else; and the only specimen Orchid that was a permanent occupant of a vinery was a large plant of *Dendrobium speciosum*, which was too big to be conveniently moved in and out at the doorway. A few other Orchids were occasionally taken into one of the vinerias to rest when the Vines were in a dormant state—a practice which is far from uncommon. A number of Camellias and Azaleas also were grown under the Vines when the conditions of the vinerias were favourable to the growth of such plants; but this again is, I fancy, a common practice enough, and I repeat that the vinerias were used mainly and successfully for the growth of Grapes.—F. HARRISON, *Knowsley Gardens, Prescot.*

[We have submitted Mr. Harrison's letter to our correspondent, and he replies—"I have been both 'wrongly informed' and also under a 'false impression.' My information was from a gentleman whom I had reason to believe had knowledge of the matter, and not from any servant of the family. I bow, however, to Mr. Harrison's correction. My impression was formed on the structure of the houses and on the appearance of the Vines. Mr. Harrison supports me in the reasonableness of my assumption by admitting the houses to be 'peculiar' and 'difficult to manage.' As to the Vines, without disputing Mr. Harrison's statement, I can only say that they have worn out quickly."]

### ROSES FOR SMALL COLLECTIONS.

THE majority of Rose lovers being small growers, I am sure a word of warning just now at the buying season of the year will not be out of place.

Old growers will bear me out when I say that most new Roses are large, coarse, and without scent, and, moreover, do not last. For example, Mons. Noman as shown at the Crystal Palace some three or four years ago was splendid and unequalled as a light Rose, but it has never been good since its first appearance. This should act as a warning to amateurs not to buy untried sorts. The bulk of new Roses are not improvements. Raisers have yet to excel those three fine old purples Pierre Notting, Vicomte Vigier, and François Louvat, and yet in small gardens one seldom finds them. Why is this? Simply because buyers will buy Roses puffed by raisers instead of waiting and seeing them proved. I would say to small gardeners, Do not have a bad Rose in the place. Instead of buying, say, a hundred sorts, thirty of which are bad, order two or three of a sort. Big print, heavy charges, and vivid descriptions do not make good Roses.

The following may be added to the list I sent you a few weeks back, all being good:—Mdlle. Marie Finger, a darker, and Capitaine Christy, a lighter Mdlle. E. Verdier; Maxime de la Rocheterie, a fine dark purplish red; Comte de Serenye, a fine light blush; Hippolyte Jamin, an improved Countess of Oxford; and Madame V. Verdier left out in error.—AN OLD ROSE-GROWER.

### DR. PLANT.

THREE has just passed away at the ripe age of eighty-seven one of the most accomplished florists it has ever been my good fortune to know. It is a very long time since my love for florists' flowers was first developed, but even then, forty years ago, Dr. Plant was the leading florist in Ireland, and some of his achievements I have never seen excelled, or indeed equalled, in this country. We were some five or six years afterwards thrown together as competitors, and it was a white day in my floricultural calendar when I was enabled to beat "the doctor" in Auriculas. I never did it but once, but to do it once was something. At the period to which I allude Dr. Plant's cultures were the Carnation and Picotee, and the Auricula; he afterwards added the Tulip, and in later years (when it became so great a favourite) the Rose. One characteristic of his cultivation was that he managed plants which nobody else seemed to be able to do. I have never seen, for instance, amongst Auricula-growers such plants of Booth's Freedom as he used to grow and exhibit. I have seen it, and that not one plant only, but many, with six and seven pipes, each pip as large as a half-crown and without the slightest coarseness. Taylor's Glory, Page's Champion, and Hey's Apollo I have seen with him by the dozen. The latter flower, a very beautiful blue self, I have never seen elsewhere; with him it was a most effective flower.



His was the first place I ever saw a stage of blooms in a regular Auricula house, and I shall as long as memory lasts never forget the sight—all the plants models of growth, strong, but not "lissy," and with fine trusses of bloom of generally seven pipes; he never allowed more. He was most chary of introducing novelties, thinking the old better; but although he clung to them he was in later years obliged to confess that in such kinds as George Lightbody, Richard Heady, and others the old had been distanced; and when he introduced a new variety into his frames he very soon obtained a good stock of it. It was the same thing with Carnations. That wondrous rose flake, Burt's Flora's Garland, I have seen with him as one of the grandest flowers possible, but it has now almost passed away, and in very few (if any) lists is it now to be seen.

Of his Tulips it is impossible to speak too highly; they were all of grand strains, of great purity and size; and as he was a true florist he admitted nothing inferior into his collection; and although my memory goes back to Groom's grand collection at Clapham, and I have seen the Slough, Stapleford, and other beds in bloom, I have never seen beds of greater excellence than his were.

As I left Ireland nearly thirty years ago I have had of late years but few opportunities of seeing Dr. Plant and his collections, but I am sure he will be greatly missed in the horticultural world, especially in the Royal Horticultural Society of Ireland, of which he was the oldest member at the time of his death, having joined it forty-five years ago. I fear he leaves but few behind him to follow in his steps, and I am quite sure not one who can occupy the position he for so many years held.—D., Deal.

#### NEW DRACÆNAS AT THE ANERLEY PARK NURSERY.

Mr. WILLS is to be congratulated on the possession of a batch of seedling Dracænas which not only eclipse the few hybrids hitherto raised, but which effectually supersede all foreign introductions of this fine genus of stove plants. For these plants he is indebted to the skill and perseverance of his industrious foreman, the eminent hybridist, Mr. F. Bause. For this splendid achievement Mr. Bause is to be complimented by the whole nation of horticulturists, as he must be honoured and recompensed for his brilliant success. Only a few years ago Mr. Bause revolutionised the family of Coleuses, and unfolded new beauties which were not before dreamt of, and now he has revolutionised the Dracænas, and, as with the touch of the magician, he has brought out the hidden beauties of a family of infinitely greater value than the Coleuses. In three years the Coleuses by rapid propagation had become common; but in three times three years these fine Dracænas will be coveted by those who do not own them, and cherished by those who do.

A portion of these grand hybrids were exhibited yesterday in the Council-room of the Royal Horticultural Society, and it is gratifying to be the first to publish their names and give some description of them. We have also seen them at home, for on the invitation of Mr. Bause we hastened to Anerley to see his brilliant family, and we were fairly startled by their beauty, variety, and distinctness.

The vigour of these plants is wonderful, their habits excellent, and their colours such as have never been seen before in the family. The varieties where white predominates are not only pure and pearly, but the white is a solid white without any flimsy decaying edge. The magenta in their foliage are rich and glowing, the red full and deep, the pink and rose pure and decided, and there are tints of orange, salmon, and purple, with various shades of green and bronze as their staple or ground colours. Yet they are now only just breaking into beauty and character, each new leaf being brighter than the last; and what the plants must be when the tops are struck, and with, as we may reasonably expect, their colours intensified and preserved in the lower leaves, time can only tell. But if never more beautiful than now they are the most beautiful of all, and we take them and briefly describe them as they are.

The quickness with which these plants have been raised and grown is not much less remarkable than their intrinsic merit. Three years have not yet elapsed since Mr. Bause entered the service of Mr. Wills, and here are plants—hundreds of them, of great substance and vigour of from 2 to 3 feet in height. Mr. Bause found a few old stumps showing flower-spikes, and these were the parentage of this unequalled group. The seed was sown on August the 1st, 1874, and on November the 10th,

1875, these splendidly-grown plants were exhibited. Mr. Bause is therefore not only a hybridist of the first rank, but as a cultivator his skill must be equally acknowledged.

The group must be divided into three sections—broad, medium, and small-leaved. The former will be unrivalled for general decorative purposes, and the latter must have the front rank as dinner-table plants. We are able to give the names of about thirty-six varieties which have been selected out of a collection of 1700 seedlings, with their parentage; of the latter the variety first named having been the seed-bearing parent.

*Willisii* × *excelsa* and *Regina*.—Plant robust; leaves broadly oblong and gently curving; colour rich bronze flaked with magenta, some of them suffused with pink. Splendid.

*Bauseii* × *Chelsoni* and *Regina*.—Plant stout and vigorous; foliage broad, of great substance, and arched; colour deep bronze, distinctly edged with deep red, which is pure and constant. A grand variety.

*Victoria* × *concinnum* and *Regina*.—Plant strong, of sub-erect habit; leaves broadly oblong, tapering; colour, lower leaves green and the upper leaves almost pure ivory white, healthy, and with no signs of decay. Very effective.

*Anerleyensis* × *terminalis* and *Regina*.—Plant very robust; leaves long, broad, and sub-pendant; colour bronzy green, creamy, striped with deeper cream and suffused with rose. A bold and attractive variety.

*Versicolor*.—Parentage and character similar to the above, yet distinct. Plant not so robust, but colour richer. Effective.

*Fulgens* × *excelsa* and *terminalis*.—Plant massive; leaves broad and drooping; colour deep bronze with narrow rosy pink margin. Very fine and promising.

*Alba marginata* × *nigrescens* and *Regina*.—Plant robust, erect; leaves green marked with clear white. Distinct and good.

*Mastervii* × *nigrescens* and *Regina*.—Plant massive, dwarf; leaves very broad and drooping; colour light bronze with deep pink edge and a narrow dark midrib; habit very fine. A very promising variety.

*Tellingi* × *ferrea* and *Regina*.—Plant robust; habit sub-erect; leaves large; colour bronze and rose, but not yet fixed. A very effective and promising variety.

*Barroni* × *terminalis* and *Regina*.—Plant of robust dwarf habit; colour bronze, heavily marked with pink and cream. Very fine and effective.

*Leucocilia* × *Cooperi* and *Regina*.—Plant tall and free; colour green and clear white. Distinct and effective.

*Picturata* × *nigrescens* and *Regina*.—Plant very massive; leaves broad and fine; colour deep olive-green, with a margin of mottled pink and red, promising to be constant. Very fine.

*Salmonia* × *concinnum* and *Regina*.—Plant of free upright growth; leaves long and tapering; colour green suffused with salmon, which may possibly deepen and lead to a new colour. Interesting.

*Triumphans*.—Plant of the same parentage and character as *Picturata*, but not mottled, and colours lighter and brighter. Good.

*Renardii* × *Cooperi* and *Regina*.—Plant moderately robust and of excellent habit; colour green, the new leaves creamy suffused with rose. Very attractive.

*Scottii* × *concinnum* and *Regina*.—Plant vigorous and dwarf; habit good; leaves broad and drooping; colour rich bronze; the upper leaves creamy suffused with pink. A handsome and promising variety.

*Pendens* × *Cooperi* and *Regina*.—Plant vigorous; leaves broad and elegantly arched; colour deep green, edged with rose and cream. Very attractive and fine.

*Stricta alba*.—Parentage doubtful, possibly × *nigrescens* and *Regina*. Plant free, erect; colour green marked with clear white. Distinct and fine.

*Garolette* (Mrs. Wills) × *concinnum* and *Regina*.—Plant medium, dwarf; leaves narrow, 1½ inch broad; colour bronze and magenta. A brilliant and striking variety.

*Voluta* × *Cooperi* and *Regina*.—Plant robust and forming a perfect massive pyramid of arched foliage; colour dark, the upper leaves edged with cream and suffused with rose. Very distinct and promising.

*Venusta* × *concinnum* and *Regina*.—A rich-coloured drooping variety. Very promising.

*Elisabetha* × *Cooperi* and *Regina*.—Plant massive and of fine habit; colour bronze and red. A fine and promising variety.

*Terminalis alba* × *terminalis* and *Regina*.—Plant tall,

erect; leaves narrow and pointed; colour green, freely marked with ivory white. Very effective, and a fine decorative variety.

*Rebecca* × *Cooperi* and *Begonia*.—Plant vigorous; leaves broad and wavy; colour magenta, pink, and green. Very bright and effective.

*Mabilis*.—Plant of medium growth; colour very brilliant pink. A glowing decorative variety.

*Eximia* × *excoelsa* and *terminalis*.—Plant robust and of fine habit, with noble arched leaves; colour dark bronze with a distinct red margin. A fine variety.

*Cantrellii* × *ferrea* and *excoelsa*.—In the way of, yet distinct from the preceding, and also a fine variety.

*Thoma* × *terminalis* and *concinnum*.—Plant medium; leaves narrow; colour bronze and pink.

The following are narrow-leaved varieties, and will be unsurpassed for dinner-table decoration. We have seen them under artificial light, and can testify to their elegance of form and richness of colour:—

*Frederici* × *congesta* and *Chelsoni*.—Plant medium; leaves narrow, graceful, and nicely arched; colours bronze and red, suffused with a tint of orange. A bright and glowing variety.

*Amalie* (Mrs. Bause) × *congesta* and pollen of *Begonia* and *terminalis* mixed.—Plant medium dwarf; leaves narrow and graceful; colours bronze, red, and pink. Excellent.

*Bella* × *excoelsa* and *terminalis*.—Plant similar in habit to the preceding; colour bronze, distinctly edged with red. A chaste and effective variety.

*Violacea* × *congesta* and *nigricans*.—Habit same as preceding; colour purple bronze. Distinct and effective.

*Earnesti* × *congesta* and *terminalis*.—Habit similar to *Bella*; colours bronze and bright red. A distinct and fine variety.

*Sydneji* × *concinnum* and *Begonia*.—Plant tall, leaves narrow and sub-erect; colour purple bronze. Distinct and effective.

*Renardii* × *congesta* and *Begonia* and *terminalis*.—Plant compact, graceful; colours similar to *Amalie*. Very attractive.

*Jocunda* × *limbata* and *terminalis*.—Plant tall; leaves narrow and very dark. Distinct and good.

Such is a hasty description of these remarkable hybrids. The colours are given as affording a general idea of the plants, which are, however, changing every day and unfolding fresh tints. Their colours, in fact, are not yet fixed, and can hardly be finally determined until the plants are grown from cuttings. Two or three tops which have been taken off and struck have become richer in colour than on the seedling plants; and it is highly probable that others will follow the same rule.

It is remarkable that plants of the same parentage are widely different in habit and colours. It is also noticeable that in no instance has *Begonia* been a seed-bearing parent, but has been freely used as a pollen plant, and with decided effect.

A gentleman when inspecting the plants—himself one of the first of British horticulturists and a collector of plants—pertinently observed that "It is now hardly necessary to imperil the lives of collectors in hunting-out new *Dracenas* from the dangerous wilds of the tropics, when they can be created in such diversified beauty at home, for nothing as yet received from abroad can equal these grand English hybrids."

We congratulate Mr. Wills on his good fortune, and Mr. Bause on this splendid evidence of skill in hybridisation. He has now revolutionised two genera of plants, and merits substantial honour and reward. We do not hesitate to say that there is not to be found in the whole civilised and uncivilised world such a valuable collection of *Dracenas* in the same area of space as can be now seen in the little span-roofed house at Anerley.

## THE PLAGUE OF ANTS IN SOUTH KENSINGTON.

THE wail of distress from that ant-infested district increases rather than diminishes. The lady writes to say that she has tried to extract from the *Journal of Horticulture* some crumbs of comfort in her sufferings from the plague of obnoxious creeping things in her house, which have taken the place of wasps and gnats—those well-known enemies of her youth. "I have had," she says, "the offices well painted, and every hole filled with putty, but still the horrible ants swarm. I believe they breed in the walls in consequence of the bad materials employed in building; but from whence they contrive to emerge puzzles us all. Now we are trying the plan suggested by the *Journal of Horticulture*, and we are laying traps for

them—scraps of meat or bacon, which, my servants assure me, attract thousands, and they have the most lively satisfaction in boiling them. Still there seems to be no diminution. They almost realise the old saying, 'Kill one, and ten come to the funeral.' We have endless companions in misfortune.

"I think South Kensington is particularly infested with them. Lord —'s house, next door, is so possessed by them that the servants have the greatest difficulty in keeping their provisions from these vermin, which seems to be still more numerous than with me. Do think of my ants, if you know of any one learned in such plagues. We have found out that the little wretches bite. Can any of your correspondents suggest other remedies? How would it answer to sprinkle Calvert's carbolic powder on the ants and on their runs? Would the smell be injurious to the inhabitants? I suspect these pests breed in the summer in the Horticultural Gardens, and then migrate into the houses around during the winter, to the great annoyance of the inhabitants."—O. M.

## OSMASTON MANOR,

THE SEAT OF J. WRIGHT, ESQ.—No. 2.

I CONCLUDED my notes last week by noticing the Vines, and will now pass on to the other houses devoted to the cultivation of fruit.

Peaches are grown at Osmaston on an extensive scale. They have a period of use of six months, commencing in April and continuing until the middle of October. The houses in which the trees are grown are light, lengthy, and lofty. In some of them the trees are trained up the back wall, the front of the houses being occupied by trees in pots plunged in the border. These comprise Plums and Cherries as well as Peaches and Nectarines. In other houses the trees are trained on a low semicircular trellis as well as on the back walls. The pot trees are extremely well grown; they are heavily cropped and richly fed, it not being unusual to ripen from four to six dozen Peaches on a pot tree. The trained trees are also in excellent order. Some of them are large, and bear from three hundred to five hundred fruit on each tree annually. I have never seen trees in better bearing condition than are these. The wood is not strong, but the foliage possesses that rich Portugal-Laurel green hue indicative of sound health.

Mr. Booth's principal stimulant is cow dung. The pot trees are heavily dressed with it, and the borders have a thick covering of it annually lightly surfaced with soil. As soon as a tree shows signs of exuberant growth it is carefully lifted and root-pruned, and the roots are kept near the surface. The ground is, in fact, completely netted with them, and the wood by this system of culture is of medium strength, short-jointed, and fruitful. An unlimited supply of water is laid on, and is used freely, the trees being regularly drenched in the growing season; and in the resting period the borders are not suffered to become in any degree dry. By these continued washings and rich surface-dressings red spider is never seen in these houses. The Peaches most esteemed are *Grosse Mignonne*, *Belle Bause*, *Royal George*, *Diamond*, *Noblesse*, and, as the best late sort, *Barrington*; the Nectarines which are mainly relied on being *Pitmaston Orange*, *Pine Apple*, *Violette Hâtive*, and *Victoria*.

Besides the vineries and Peach houses there are three ranges of span-roofed forcing pits devoted mainly to the cultivation of Pines, Melons, and Cucumbers. Pines are not extensively but well grown, the plants being in excellent order. Melons have during the past season been both numerous and fine, 180 excellent fruits having been cut from the house 20 feet by 12; the sort principally relied on being a splendid variety raised at Osmaston, and which is to be distributed during the ensuing season. The crop of Cucumbers has also been extraordinarily prolific, and beyond all doubt Mr. Booth has raised a variety of great merit. From a house of the dimensions given above 1864 Cucumbers have been cut varying from 24 to 32 inches. These fruits have been sufficient to supply a house of thirty-five persons besides what have been given away, and over and above these the surplus has realised by sale £20. The variety is as fruitful as *Telegraph*, one of its parents, and is much longer; but its chief merit consists in its keeping properties. Fruits were hanging in October on plants which had lost their foliage by old age, and these fruits were as green as ever: they appear, indeed, to refuse to turn yellow. The flesh was quite firm, although they had been hanging for months. It is clearly a variety of great value, but scarcely any seed can be had from it, and it is perpetuated by

cuttings; yet Mr. Booth has succeeded in saving a few hundreds of seeds which are to be distributed in the spring.

In addition to the structures devoted to fruit culture are also some spacious plant houses. Two of these are 50 feet square with unusually flat ridge-and-furrow roofs, one of them being glazed with rough glass. These houses are admirably adapted for growing huge specimens, and it was in them that Mr. Harrison perfected the Orchids, Ferns, &c., for which Osmaston was once famed. In the houses are healthy and valuable, if comparatively small, plants, which are principally grown for decorative purposes, as the furnishing of rooms, &c. They comprise *Dracenas*, *Palms*, *Pandanuses*, *Ferns*, and other ornamental plants. Amongst the latter some plants of *Todea superba* are in splendid order, and *Dichotoma japonica variegata* is in a flourishing state. Another of Mr. B. S. Williams's new plants, *Anthurium variegatum*, is greatly valued as a table plant, being distinct, elegant, and of easy culture. *Calanthes* are well grown, and *Urocolina pendula* is extensively cultivated as a bright-coloured autumn-flowering plant which has been recently noticed by Mr. Abbey. Another house contains *Asaleas*, of which there is a large collection, with hundreds of *Primulas*, *Cinerarias*, *Solanums*, &c., for the conservatory. These are also useful ranges of brick pits, which with their contents I cannot here detail.

The walls of the garden are well covered with fruit trees, especially Pears, and the crop is exceedingly fine. There were probably many sacks of *Marie Louise* alone, and other standard sorts are grown on an extensive scale. A wire trellis on the French system, about 100 yards in length and 15 feet in height, is also covered with Apples and Pears, and the crop is very large. Sixty sorts of Apples are grown; one named *Spencer's Seedling* being remarkably handsome, prolific, and esteemed as a valuable kind. Fruits are grown also on bushes, which were laden with produce; and the excellent and complete fruit room was at the time of my visit being filled to repletion.

Strawberries are admirably grown at Osmaston, and I have never seen such fine fruit as has been produced at this place, especially of *President* and *Oscar*. *Grove End Scarlet* is grown for preserving, and for this purpose the old sort has still no equal. The plants are planted early in soil trenched 8 feet deep, and enriched with manure and bones. They produce fine crops of very large fruit the first year, and prodigious crops of smaller fruit the second season, and are then destroyed. The plants would continue to bear longer and bear well, but by no other mode can Mr. Booth obtain such a full return of fine fruit as on the two-years system. He therefore clears and plants a given space of ground every year, as being the most profitable practice in Strawberry culture.

Vegetable culture is also conducted with the same care as fruit and plants, and as an instance of attention in this department Mr. Booth saves his own seed of a few standard sorts of Peas, selecting only the finest pods, and he finds the very best results follow this mode of selection. He finds *William I.* the best of all early Peas, and *Hair's Dwarf Mammoth* the most valuable of all late kinds. Of Celery, which is largely grown, the most approved sort is *Leicester Red*. The arrangements and appointments of this garden are very complete, and the management is as good as the means.

I now in conclusion, and as briefly as possible, revert to the ornamental features of Osmaston. The lawns and pleasure grounds are about 50 acres in extent, and are rich in trees, shrubs, and Conifers. The terraces are extensive, the fountains attractive, and the surrounding scenery—the heavily-wooded hills and valleys of verdure, with a glimpse of water through every vista—imposing. But I will first proceed to the

ROCKERY.—Our route is by a fine Yew hedge, and we pass golden piles of Hollies and many a valuable Conifer. Eventually we see a solitary rock, as if bursting its prison house the earth, then another and another. Following their track amongst the shrubs we come to a cavernous entrance. We stoop instinctively, but there is no occasion for stooping, for the entrance is ample. On either side the stony passage are fissures—yawning rifts, as if torn asunder by some superhuman power; passing these we enter the rock-bound dell. The rockery at Osmaston is not a huge pyramid of stones which we walk round to admire, or wonder why they were so placed. It is an amphitheatre, and we stand still and wonder that it is really a work of art. In the centre of the enclosure is an irregular stream of water; at its edge are Sedges and water plants, massive boulders protrude through its sides covered with Lichens and half hidden by Ferns. On drier knolls are

*Pampas Grass*, and scattered about in apparent abandonment are mammoth stones, Heaths, Ferns, *Asaleas*, and Conifers.

The sides of the amphitheatre are rugged rocks, clothed with foliage and draped with Alpine plants in great variety. In one corner *Aralia Sieboldi* luxuriates, in another *Yuccas* protrude from the fissures. On a knoll is *Sciadopitys verticillata* in excellent health, and the distinct *Cephalotaxas* in variety partially hide with their rich foliage the ponderous walls of rocks. A variegated Maple is dotted in here and there to give light to a somewhat sombre scene, and warmth of colouring is imparted by the glowing crimson of *Ampelopsis Veitchii*. What a fiery plant is this when in its last autumn garb! As a trailing, climbing, pendant plant for rocks, roots, walls, or trees it has no equal as a summer covering plant, green in spring, and of glowing richness in autumn. On the rocks at Osmaston it was precisely at home. We ascended from the dell by rough stone steps, and to look down on the scene below—the cascades, rocks, and foliage chaotically intermingled, one is not surprised that Mr. Parham considers the work as one of his greatest triumphs, for this natural-looking and wild picture is entirely artificial. The rocks were moulded by Mr. Parham, and the plants planted and tended by Mr. Wright and his gardeners Mr. Harrison and Mr. Booth, and the work does credit to them all. The whole work is complete; it was projected and carried out skilfully, and is kept and tended tastefully.

From the rockery we pass to the terraces. There are three tiers of these, each extending about 100 yards. On the lawn portion of them are planted standard *Rhododendrons*, standard *Portugal Laurels*, very fine; also American and other ornamental plants. They are further graced with fountains, and here and there a few beds of flowers; but flowers are sparingly used, and wisely so, on this dignified frontage, with the bold nature of the adjacent scenery. The terrace wall is covered with climbing plants, and on the walls of the mansion are *Magnolias*, a yellow *Banksian Rose*, 30 feet high, which flowers freely, and an equally fine plant of *Maréchal Niel*.

Conifers at Osmaston are extensively planted, and many fine specimens are to be seen. Not only the lawn and pleasure grounds contiguous to the mansion, but even the more distant woods are rich in many valuable plants of this nature. Mr. Wright is a great patron of ornamental trees, and with a considerable knowledge of them, combined with sound taste, he is constantly adding to the ornamentation of his estate. *Wellingtonias* may be seen by hundreds, one specimen which I noticed being about 36 feet in height, and is 5 feet round the stem at 2 feet from the ground. It is perfectly furnished, and in robust health. That is only an example of many others. *Cryptomeria japonica* is of the same height, and exceedingly dense. It is a wonderfully fine specimen of this fine Conifer. *Pinus Morinda* is in grand condition and similarly fine. There are also fine examples of *P. Nordmanniana* and *Piceas nobilis*, *amabilis*, *pinsapo*, and others. *Thuopsis dolabrata variegata* is freely planted, and the well-furnished specimens 8 feet in height are very attractive. All the new and choice *Retinosporas* are included, and are growing freely, and there are perfect cones of *Irish Yews*. *Deodars* and *Cedars of Lebanon* are numerous and fine, many of these having been successfully removed by Mr. Booth when 20 to 30 feet high. Time, care, and fresh soil are insisted on, and no hurrying or rough handling of the trees and roots is permitted in the removal of large trees, and it is rare indeed that a specimen has failed to grow.

This is but a cursory glance at the ornamental grounds of Osmaston, which are full of fine views and features which space does not permit me to detail.

The exit from the grounds is through an avenue of *Limes* and *Wellingtonias*, of which the terminal landmark is the village church. But this Lime avenue is not quite satisfactory, and affords an instance of the soundness of the remarks of Mr. Allis when he recently urged the importance of having all the trees of the same variety, and recommended as the best *Tilia rubra*. The trees are not all of the same variety, and they consequently vary in size and outline, but whenever we come to the kind recommended, the tree is not only much larger than others of the same age, but is more handsome in shape and outline. It is certainly a matter of great importance in avenue-planting to have all the trees of the same variety, as securing the uniformity of growth which is so essential.

There are many trees and Conifers which I have not noted, but there is one which I did not see in the grounds which is

worthy of a place there—*Cupressus Lawsoniana erecta viridis*, and which I beg leave to recommend as worthy Mr. Wright's notice.

I leave this fine place with the impression that in planting and management it bears the impress of skill and taste on the part of the late Mr. Wright and Mr. Harrison (now at Knowsley), and certainly not in a less degree does it that of the present owner and his industrious and able gardener Mr. Booth.—J. W.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

**THE GREENHOUSE.**—There are many things to attend to in this structure now that plants have been or ought to have been housed. In the first place, avoid overcrowding, and those plants that have been standing outdoors for a length of time must not be kept in a too dry atmosphere, neither must it be heated in mild weather. I allude to Camellias, Azaleas, Heaths, and Epacrises, as well as many other hardwooded plants which an amateur may feel inclined to grow. This too sudden change from an outdoor temperature often causes Camellia buds to drop off, and if in an unhealthy state some of their leaves also. Too much water and with bad drainage will induce the same thing. For the present, therefore, an occasional syringing the foliage of all these plants will do good. They must not have too much of that even; they ought to be allowed to become dry occasionally, or Heaths will be liable to mildew, and too frequent syringings will induce Camellias to flower too early, and those that lose their buds would be likely to start into growth, which would be at the wrong time of the year. Watering at the root is a different matter, for though Azaleas may not require so much water in winter as in summer, yet it is necessary that they should have sufficient, for their fine hair-like roots will not bear drought. But when a plant of this kind is watered give it sufficient to go through the ball of earth and then have done with it. On the other hand, such plants as Cactuses may be kept dry until the fleshy leaves begin to shrivel, then give water; but there are not many plants that will bear this. Achimenes and Gloxinias may be best preserved in the pots in which they grow for the present, and if they could stand on a damp bottom would receive moisture sufficient. The Gloxinia being more fleshy might bear it longer, but then it will not bear the cold so well as the Achimenes; therefore place these in the warmest part of the house.

Ventilation is another nice point to attend to. Just through this month, or even up to Christmas, there is frequently a stagnant outdoor atmosphere for days together; then it is necessary that a little fire heat should be given, and the bottom as well as top ventilators opened, so as to promote a circulation, or mildew makes its appearance.

Lachenalias are easily-grown bulbs, and should be encouraged in the cold frames at present. Primulas and Cinerarias, too, must be encouraged in every possible way, for now is their best time, and a check would be injurious to them.

Look sharp after green fly, which soon makes its appearance upon plants in a genial atmosphere. Most people make it a rule to fumigate their plants several times after they are housed, because those parent aphides that are brought in with the plants if not killed would soon increase, and cause much trouble to eradicate.

Forward with all dispatch the growth of Calceolarias in pots. All successions of them should be shifted on. They, too, will do in cool frames for the present, but must have plenty of air while the weather will allow it. Lilliums, some of the most beautiful plants grown, should now be potted, putting three or four bulbs into a pot, and let the bulbs be covered with about 4 inches of soil. We used to do them this way. Use good-sized pots, drain them well, half-fill the pot moderately firm with soil, place the bulbs on it, and cover them over with 4 inches of soil; place them either in a cold frame or in one corner of the garden under a wall, cover them with litter so that no frost can reach them; examine them after being potted a considerable time, and remove them from this only when the shoots are pushing through the soil; then place them in a cool frame, and for a few days protect them from much light until they show signs of becoming green, when they may have more of it; then clear the top soil off and add a little fresh, and as they grow add more. When the weather gets warm enough for other plants to stand outdoors let them do the same, and there they may remain till they flower. They like plenty of water, and as they approach flowering weak guano water may be given twice or thrice a-week, and they will bloom admirably about August.—THOMAS RECORD.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### HARDY FRUIT GARDEN.

VERY little can be done in this department now that all the fruit has been gathered and the trees are rapidly shedding their leaves. We are preparing a border to plant out a few Apple

trees, and it is on ground where some old Bullace trees have been grubbed out. It would be foolish to plant any other trees on this ground without trenching it well up. The way this is done is to take out an opening at one end of the border 2 or even 3 feet deep, according to the depth of the soil. In our case we cannot go more than 2 feet, as the soil is not deep enough. The ground is full of old roots, which are carefully picked out, and as the soil is poor some rotted manure is worked in, and two barrowloads of good rich loam to every three square yards. The loam we consider of more importance than the manure. We would rather have trenched the ground six weeks ago, but the crop has just been cleared from the trees. At planting some fresh loam will be placed under and over the roots, and in this way the trees will get a good start. Probably next autumn the trees will be lifted, and the ground trenched over again, and the trees be replanted in fresh loam. In ground such as ours, where there is much tendency to canker, this lifting and replanting keeps the roots near the surface, and they are further induced to work upwards by the trees being mulched over the roots in winter, the mulching not to be removed, but left on to be washed in by the rains and bleached by the summer's sun. The borders are so full of roots that it is not possible to fork the ground over without injuring them, but in light soils digging fruit borders is very questionable practice. Two varieties of Apples not so well known as they ought to be have been added to our collection this year; they are grown to great perfection in Mr. Thompson's orchard at Ilford. The first is known as Brownlee's Russet, this is grown in quantity, and is very highly esteemed; the other is The Mother, an introduction from America. It was growing on an espalier, and the tree was loaded with large, handsome, highly-coloured fruit; its appearance is all in its favour as a market variety, but it is also of very good flavour; the fruit is in use in October.

We have cut away the old spent Raspberry canes, pruned and tied the young canes of this year into their places. Owing to so much wet the Strawberry quarters are very full of weeds, mostly grass, and this has been introduced with the loam used in putting out the young plants. It will not be possible to subdue them by hoeing, and at the first opportunity they must be removed by hand. Strawberries in pots have not yet been removed to the orchard house where they are wintered.

The Chrysanthemums are in full flower, and if it was necessary to water other plants on the shelves the damp arising therefrom would do much injury to the large flowers by causing the petals to become mouldy.

We would just allude to the fruit room. It is necessary to look over all the fruit at least twice a-week, and to remove such as have decayed or any that show symptoms of decay. There is now an over-abundance of fine Pears. The best that we have in use at present are Marie Louise, Doyenné du Comice, and Maréchal de Cour; these three are very distinct both in appearance and flavour. There are many others in use, of which the best are Beurré Superfin, Zéphirin Gregoire, Triomphe de Jodoigne, and Van Mons Léon Leclerc. Thompson's is a very fine October Pear, but it is now over.

##### FRUIT AND FORCING HOUSES.

**Vineries.**—We have not yet started the early houses, and we have given full instructions as to previous preparation of borders, washing and painting Vines, and limewashing walls. It would be well if the woodwork could be painted about once in two years. The hot-water pipes may be painted every year with lampblack and linseed oil. We have discontinued making up a bed of fermenting material in the house for the last three years, but the Vines certainly start more strongly when the heat from the pipes is supplemented by the genial steam from a bed of manure or leaves, or a mixture of equal proportions of both. It is necessary to turn over the bed occasionally, at the same time adding fresh material to keep up the heat. In our case it is necessary to use stable manure as leaves cannot be obtained, but if fresh Oak leaves could be obtained they would be used in preference. When a good bed of fermenting material was made up in the house even at midwinter, it was not necessary to use any other heat until the buds were well advanced, which saved fuel, as the fires were not required for three weeks or a month later than usual. The work in the late houses, and other instructions, is the same as that given on page 387.

##### GREENHOUSE AND CONSERVATORY.

Chrysanthemums make a very beautiful display now where the cultivation of them has been attended to, as it ought to have been. At Loxford the large orchard house is quite filled with plants, a very large proportion being grown to produce large blooms for exhibition. These plants are arranged closely together, the tallest plants at the back, and those that have been trained for other purposes and Pompons about a foot or 18 inches high near the front, so that the eye catches the whole mass of flowers in a gradual incline from back to front. The earliest-set buds always produce the largest flowers. Empress, of India, Prince Alfred, Prince of Wales, Princess of Wales Beethoven, and a few others are unusually large this year. It is necessary to look over the flowers very frequently, and remove

any decaying petals. Those who intend to exhibit will be careful to see that their best flowers are not injured by inattention to this, as one decaying petal will do very much mischief in a few days if it is unobserved. Mildew is also very troublesome. The plants are most persistently attacked by this parasite towards the end of September, and the only way to keep it in check is to dust the plants with flowers of sulphur as soon as it is perceived; but as mildew always does attack them, it is best to use sulphur as a preventive. Just before the buds are formed, or, indeed, all through the growing period, the plants are also attacked by aphids, which cluster in the centre of the young growths, and would quite spoil the bloom if they were not destroyed. Dipping the shoots in soapy water wherein some tobacco liquor has been mixed, or dusting with Scotch snuff, will destroy them.

Specimen plants are being trained to neat sticks. It is not desirable to finish tying them until the buds are well expanded, as they increase in growth up to the time the buds are about fully opened. The small Pomponne varieties require but few sticks. The growths are trained into the proper shape early in the season; the main stems are fastened at that time to supports to bring the plant into the required shape. Further training is unnecessary except to regulate any after-growths that may grow out of the required bounds. The plants require large supplies of water, but it must be applied to the plants carefully, and not be spilled about in the house. Moisture is very injurious to the flowers, and the largest and best blooms suffer first.

The Hyacinths and Tulips have just been potted. Many persons pot their bulbs as soon as they are received in September, and they ought to be potted early if they are intended for early forcing. The largest proportion of ours will flower late in the spring, and for this the last week in October or the first in November is the best time to pot. The soil used must be rich, but not too rich; an over-rich compost rots the roots, and the bells do not open well. We were recommended to pot our bulbs, by one who had ample means of knowing about the culture of Hyacinths, in well-rotted cow manure, the manure to be reduced to mould by laying for years exposed to the atmosphere. We tried two or three bulbs in this rich stuff, but not a root ran into it, and the plants came to nothing. Our compost for Hyacinths is about equal parts of cow manure, loam, leaf mould, and sand. For Tulips it is a mixture, except that stable manure is used instead of the other. After potting the pots are plunged in cocoanut fibre refuse out of doors. Leaf mould answers quite as well as the fibre refuse. Ashes have been recommended very frequently, but we have not found them to answer so well. The bulbs should be plunged out of doors, and not be protected from the weather in any way. The plunging material should be about 4 inches over the pots.

Now is a good time to destroy any insect pests should the slightest trace of them be seen. There are few houses quite free from either thrips or green fly, and by fumigating now at intervals of two days the insects may be quite destroyed. It may be done three times, and then at an interval of ten days smoke again.

#### FLOWER GARDEN.

The weather has been fine for the last week, which gave us an opportunity to get all the Gladioluses out of the ground. The best plan is to dig them up with a fork and cut the stem off close to the bulb. At the same time the bulbs are spread out in a dry place, or if there be only a few roots of a sort the roots are placed in flower pots and left there until they are quite dry. If it is desirable to increase the stock of any particular variety all the spawn that clusters round the base of the roots is saved and potted, the spawn is potted at once, and the pots are plunged in a cold frame, or anywhere if they can be sheltered from too much rain. The roots are very large, and with few exceptions are perfectly sound; we took the precaution of pulling out all plants that were unhealthy at the time of flowering.

Carnations and Picotees that were potted a few weeks ago have been looked over and all decaying leaves removed. The pots are now plunged to the rim in cocoanut fibre refuse, the plants being only a few inches from the glass. The Pinks were planted out near the end of October, and will require no attention, except to press the plants firmly into the ground after frosts. Those who grow Pinks and have not yet planted out should do so at once; spring planting produces imperfectly-laced flowers. All the bedding-out plants have been removed and the ground made neat for the winter. These beds that are planted with spring-flowering plants are now being filled.—J. DOUGLAS.

**CHRYSANTHEMUMS.**—I was very much pleased with a collection I saw on the 2nd grown by Mr. Goff, an amateur, on the premises of the Waterworks, opposite St. George's Church, Campden Hill, Kensington, the whole of which are in pots. A few which I thought especially worthy of notice are Alfred Salter, light pink; Aurea Multiflora, yellow; Jardin des Plantes, bronze and yellow; Empress of India, white; Globe, white;

Helaine, large, white, very fine; Lady Margaret, white; George Sands, red with gold centre; Prince of Anemones, large lilac.—WILLIAM GARDINER.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

LOUGHBOROUGH.—November 15th and 16th. Mr. W. Pallett, 55, Baxtersgate, Sec.

NORTHAMPTON (Chrysanthemums).—November 16th and 17th. Mr. N. Gutteridge, 51, Denmark Road Sec.

#### TRADE CATALOGUES RECEIVED.

Thomas Bunyard & Sons, Ashford and Maidstone.—*Catalogue of Roses.*

Maurice Young, Milford Nurseries, Godalming, Surrey.—*Catalogue of Conifera, Rhododendrons, Forest Trees, Roses, &c.*

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

**NAMING PLANTS AND FRUITS.**—Some of our readers are aggrieved because the names are sometimes not promptly announced, but the delay is often unavoidable. It is no easy effort of memory to identify a specimen belonging to kinds having hundreds of kindred.

**BOOKS (E. S. T.).**—Our "Orchid Manual" and "Fern Manual" would suit you.

**GRAPES AT THE EDINBURGH SHOW.**—We are officially informed that Mr. Thomson of the Tweed Vineyard undertook to reply on the whole question for the Royal Caledonian Horticultural Society, both as one of the Managing Committee, and as a Judge at the late International Show. We have received several letters on the subject, half of them asserting and half denying that the prize was awarded to a double bunch. We cannot publish more on the subject.

**ROSES (E. S.).**—Why do you trouble yourself about standards? Unless on thoroughly good Rose soils they are generally troublesome and dwarf. On either the seedling Briar or Manetti Roses would be much more satisfactory. You procured the Briars lately, but October is much too early to dig them up, and although they may survive, which is very doubtful, if they fall you must not attribute their failure to being cut, but to their being taken up while the sap was still flowing. As to the sorts named, Capitaine Christy, Baron Bonstetten, Eugénie Verdier, Marie Comet, Mons. Noman, Etienne Levet, and Prince de Portia are good Roses, and good growers when grown on suitable stocks, Mdlle. Eugénie Verdier perhaps the most delicate of the lot.

**CROP OF GRAPES (R. Jordan).**—The crop of Black Hamburgs at the Rev Mr. Hayworth's was good, but there being nothing in the culture special there would be no instructive information if we published your letter.

**KITCHEN GARDEN WALKS (A. Dumbell).**—Gravel would do for facing instead of granite chippings.

**SUTTON'S IMPROVED READING ONION (Inquiring Tyro).**—We cannot inform you of the particulars you need. Write to Messrs. Sutton and ask them.

**THE BANKMAN MEDAL (Subscriber).**—The Royal Horticultural Society's medal was so named in honour and commemoration of Sir Joseph Banks.

**FRUITS FOR NORTH CAROLINA (H. H. F.).**—We cannot recommend tradesmen. Go to any nurseryman near you, and inform him what you need. Any of the Rhubarbs and Raspberries would succeed.

**EDWARDSIA MICROPHYLLA CULTURE (Amateur in Trouble).**—The spray sent is of the plant above named. It is an evergreen shrub with yellow flowers, which are produced in early summer outdoors against a south wall, and in April or May when grown in a cool greenhouse. It is a native of New Zealand. To flourish well in the open air it requires to be planted in front of a south wall, and its shoots trained thereto, planting in a compost of fibrous sandy peat and turfy loam in equal proportions, and after removing the soil from a semicircle drawn with a radius of 8 feet from where the shrub is to be planted 2 feet deep, place some rough material at the bottom, as charcoal or broken stones 6 inches deep, fill in with the compost above named, and introduce the shrub, planting it on a raised but flattened cone about 6 inches above the surrounding ground level, and give moderate watering. This we should advise to be done now, lifting carefully, securing the shoots to the wall. Water copiously during dry weather in summer, and syringe overhead in dry hot weather, but after the middle of September keep dry both overhead and at the roots. The shoots should be trained rather thinly, but so as to cover the wall.

**PEARS AND PLUMS FOR NORTH WALL (S. W.).**—The following Pears are likely to succeed:—Jargonelle, Williams's Bon Chrétien, Beurré de Capiaumont, Achan, Beurré Bachelier, and Knight's Monarch. Plums: Angelina Burdett, Aunt Ann (Guthrie's), Oullin's Golden Gage, Prince Englebert, Winesour, and Victoria. For the south wall of the dairy Marie Louise Pear will be suitable.

**OCTOBER-GROWING (Ipewich).**—In our "Kitchen Gardening," which you can have free by post if you enclose five postage stamps with your address, you will find full directions. Our "Orchid Manual" you can have in the same way if you enclose thirty-two postage stamps.



**PRELARGIUM LOSING COLOUR (G. B.).**—It is due to want of light, and want of heat and moisture, so as to secure free growth. The plant will not recover its high leaf-colouring until spring, when with fresh growth the colours will be good. Keep rather dry during the winter, and repot in spring.

**ILLUSTRATIONS OF PLUMIERIA ALBA AND BICOLOR (Idem).**—*P. bicolor* is a synonyme of *P. alba*, which is figured in Jacquin's "*Stirpium Americanum*." *Plumieria tricolor* in the "*Botanical Register*," pl. 510. The specimens had no number.

**RANUNCULUS AND ANEMONES PLANTING (F. H.).**—The Turbans should be planted between now and January, and the Persian varieties of *Ranunculus* from January, and *Anemones* from now to February, just as you wish for an early or late bloom. With fine named varieties the latter-mentioned date is preferable.

**HEATING WITH PEAT (W. W.).**—We have no experience of heating with ordinary peat turf, but the compressed peat answers well for stove-hot-water boilers with hot-water pipes for diffusing the heat, and in all probability ordinary peat turf would answer. A small stove boiler with a flow and return 2-inch hot-water pipe would, along the sides of the house all around, probably meet your requirements, but we do not know of any stove or furnace specially constructed for consuming peat. Perhaps some of our readers may have experience on the matter.

**CATCHING RABBITS (W. W.).**—We know of no trap but the box one with the table in the centre letting loose the spring doors, and these placed at the mouth of their burrows may take some; but a far better plan is to turn a muskrat ferret into the burrows, with a rabbit net over each of the bolt holes as well as the entrance.

**BLIGHT ON FRUIT TREES (J. P. of York).**—We presume green and black aphids is meant by green and black blight, either of which may be destroyed by syringing with tobacco juice diluted with six times its volume of water, holding in solution 2 ozs. of soft soap per gallon. The trees being young, and we presume weak, would be improved by giving a liberal dressing of manure, which we would give now, and potting-in with a fork, but not disturbing the roots, treading firm afterwards if a light roll, and mulching for at least a yard from the trees all around, with short rather littersy manure 2 or 3 inches thick.

**FORCING AZALEA ARGENT, LILY OF THE VALLEY, SPIRÆA, AND DEUTZIA (A Subscriber).**—You may place them all in heat now; the *Azalea* and *Lily of the Valley* especially, giving the latter the benefit of a mild bottom heat if you have it, and the *Azalea* a temperature of 55° from fire heat, and 10° higher by day, which will suit *Lily of the Valley*, placing it near the light. *Spiræa japonica* and *Deutzia gracilis* ought not to be started until the middle of December, and they are better if not placed in heat until the early part of January. They require to be brought on gradually.

**WINTER TEMPERATURE FOR VARIOUS PLANTS (Idem).**—*Euphorbia splendens*, *Gloxinias*, *Gesnerias*, *Coleus*, *Begonia*, *Poinsettias*, *Stephanotis*, &c., require a temperature of 55°—50° night, 65°—60° day, the lower temperature being in severe weather, and with sun and air 70° to 75° by day. The plants should only have water to maintain them fresh. If you wish them to grow the temperature should be 5° higher upon all the temperatures named, but the cooler and drier they are kept with safety to the plants the better they will do when subjected to heat and moisture.

**BUNCHES OF GRAPES FROM ONE EYE (Hortus).**—We do not consider the terms "joint" and "eye" are synonymous. Two eyes or more, as in the shoot sent to us, may proceed from one joint, and the bunches of Grapes on the shoot were twins, each from a separate eye united at their bases. We cannot insert more.

**CLIMBERS FOR NORTH WALL (M. M. T.).**—Evergreens are Ivy and *Cotoneaster microphylla*. Deciduous are *Ampelopsis Veitchii* and *A. hederacea*.

**VIOLAS (A. B. C.).**—There is no necessity to replant them; they will bloom again next year, whether left where they are this year or removed.

**NAMES OF FRUITS.**—[We do not reply to communications through the post, and we cannot name more than six fruits at one time.]—(W. H. Bois).—Beauty of Kent. (*Vesta*).—1, Doyenné Bouschet; 2, Vicar of Winkfield; 3, Winter Nellis; 4, not known. (W. K.).—Belsette du Canada; 2, Lewis's Incomparable; 3, Dunselow's Seedling. (St. Vincent & Down).—1, Golden Belsette; 2, Five-crowned Pippin; 4, English Codlin; 5, Pearson's Plate; 6, Fearn's Pippin. Pear No. 2, Beurré Rance. (*Offton*).—Marie Louise.

**NAMES OF PLANTS (H. W.).**—*Coriaria nepalensis*. (W. G. Green).—*Bom viridiflora*. It was portrayed in this Journal some years since.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### HANLEY POULTRY SHOW.

THIS Exhibition was held on the 3rd and 4th inst. We were sorry to find so few entries, but the Show has never seemed well patronised, yet the Committee issue a schedule with plenty of classes and good prize money. The poultry Judges were Mr. John Martin and Mr. Hutton, and their awards seemed to give general satisfaction. The quality was certainly good throughout the Show, and though many of the classes were small winning was by no means easy.

**Dorkings** had two classes, and the Coloured were quite a nice collection. The pair which won the extra were really capital; the pullet a great beauty. In Whites we believe the second-prize bird was the cup Alexandra Palace cockerel. Somehow he is not quite our fancy, though a smart bird. A nice pen of Silver-Greys were first, and Whites again third. *Spanish* made a nice class, and the winners well selected, and looked well. *Cochins* were a good lot in quality. A very fine pen of Whites here won the extra. We believe it was the cup pen at Edinburgh; if so, the cock has improved. Buffs were a nice lot, but nothing equal to what there was at Oxford the week before. Partridge were very fine. A capital old cock won first with a neat hen; second also good, as too was Mr. Tudman's pen. In the Variety class a pretty pair of Blacks were first, Cuckoos

taking second, and third again going to a fair pair of Blacks. Altogether the *Cochins* were a great feature in the Show. *Brahmas* were beautiful, the Darks being wonderfully good, and Mr. Ansdell's birds well to the front. Mr. Percival sent a good pen, and so did Mr. Pritchard, but nothing could fight against the winning old cock. Lights were only three pens in number, but the quality was very fair indeed, the winners walking-in easily. *Polish* were only a small collection. Fine Silvers, really good in crests, won, we believe, the extra for this section; and Golds took second and third, there not being much between the quality of the two latter pens. *French* were two nice classes. Old birds came off best in Crêves, though Mr. Knight's chickens were well-grown birds. *Houdans* were very good, and the winners rightly placed. The Variety class was conspicuous for a capital pen of Malays and some very pretty Sultans. We are pleased to find this extremely ornamental variety so generally looking-up, and to see so many new fanciers for Miss Watta's old friends the Serai Taoooks. By-the-by, we believe this lady first introduced them, and then we believe they had five toes; we mention it, as there is at present a doubt as to the necessary number. *Game* were splendid classes. The Duke of Sutherland sent a fine team, as too he did in Hamburgs, and his birds were certainly shown in beautiful condition. A Black Red cock took the extra, and we think deservedly, though the winning Brown Red was a grand bird and in admirable feather. We again saw here one or two fine undubbed cockerels, and shall expect this class at the Palace to be a most interesting one. There was a nice pen of Piles shown, which took the China extra in Classes 18 and 19. Game hens were all good, and we much liked the first-prize Black Red hen. In Duckwings the quality was not over-good, the first-prize pen coming easily to the front, second and third being moderate. *Hamburgs* were very good; the competition was mostly between a few yards, and the prizes were for the most part fairly distributed. We believe the extra went to Golden-pencils, but are not certain; if so, we think they had it properly, as the pullet was certainly a gem. Blacks were good, and the winners all of good colour. The Silver-pencils were very even in quality, all the prize birds being of great merit. Silver-spangles were a capital lot, and the winners seemed well placed. The second-prize pen was, we hear, the same pen as won that honour at Oxford; if so, we think they looked better here even than there. *Bantams* were all good, but the classes were not large. Perhaps, as a class, the Variety class was the best, for the Laced and White-booted were very good. There was also a tidy pen of Pekins here. Blacks were good, and the winners well placed. We saw, too, a very stylish pen of Duckwings in the Variety Game class. Ducks were a fine lot, and Mr. Walker literally marched-in, and had a regularly good turn. His birds were all good and nicely shown. In Variety Ducks pretty Mandarins won first, and good Black East Indians the third place. *Geese* and *Turkeys* were good though not large classes. We furnish full awards below, though we are not certain as to the correctness of the awards in the extra prizes. The Local classes contained some good birds, as also the Selling classes.

*Pigeons* had 142 entries, and in some of the classes the quality was very good. The Carriers, in which Black and Dun won respectively, were a capital lot, as also the Pouters, which were first Black and second Blue, although the system of cock and hen in one pair showed less to advantage here than in any other. In Dragoons first were Blue and second Yellow. This was a fair class. Antwerps were well placed, the second, though once good, having seen their best days. English Owls were not a good class, and the winners rather plain, the first Blue and second Silver. Pen 53 (Thresh) we thought very good. Owls any other were mostly Whites, and well placed. Fantails a nice lot, as also the Nuns. Turbits we thought but moderate. Barbs were really grand, and Blacks won the prizes. In Tumblers the first were Almond and second Black Mottle, which we preferred; the former, though good in colour, were rather plain-headed. In the Variety class Grey Frillbacks were first and Blondinettes second. The Pigeons were very badly placed as to light, and it was surprising the awards were so well made under the circumstances.

*Cage Birds* were placed on the centre table of this room, and as in the case of Pigeons, the light was very bad. Plain Belgians were a very good class, the first a stylish good-positioned bird; the second a Buff, losing only in want of condition. Crested Belgian were not as good, being a little coarse. Yellow Norwich were all of the highly-fed variety, the three first-named standing quite out from the rest; only the winners in Buffs being of high merit. The Variegated were very good in colour, and the winners Yellows. Next to the Belgians Lizards stood well for quality, both classes producing birds of great merit, though the awards did not go in all cases to the most highly-peppered birds. Of Mules there were but four birds in the two classes, the first in both cases being even four-pointed birds. Goldfinches were a good lot in all respects, but the moulted Linnets did not show to advantage, not being as forward.



**Rabbits** had four classes, that of Lops being good, the first and extra for the best going to a Tortoiseshell buck, evidently young, but of grand style and carriage, 2½ by 4½; hard ran by a Black doe, 8½ by 4½. No. 19 (Schobold), Fawn-and-white, was 2½ by 4½, but in very bad order, many others measuring well up to these lengths. Himalayans were only moderate in quality. Angoras were very good; the first a grand Rabbit in both wool and size. In the Variety class the first was a pretty good Silver-Grey, and second a Blue Dutch. Several other Silver-Greys were nice and even in the colour, but some too dark on head.

**DORKINGS.**—Dark Coloured.—1, 2, and Extra, J. Walker. 3, J. White. 4, W. Badger. 5, H. King. 6, J. Scott. 7, and other variety.—1, J. Walker. 2, W. Badger. 3, T. Foster, jun.

**SPRINGERS.**—1 and Extra, T. Moore. 2, S. L. Edwards. 3, R. Jackson. 4, T. Powell.

**COCKS.**—Cinnamon and Buff.—1, W. H. Crabtree. 2, J. Walker. 3, T. Strick. 4, Brown or Partridge feathered.—1, A. Bamford. 2, W. H. Crabtree. 3, L. Aspin. 4, R. Taitman. 5, R. P. Farnival. 6, F. Bennett. 7, White.—1 and Extra, R. P. Farnival. 2, R. Baldon. 3, W. Whitworth, jun. 4, and other variety.—1, W. Badger. 2, L. Aspin. 3, G. Finty. 4, R. H. Wood. 5, R. Dagshaw.

**MAINE PHEASANT.**—Dark.—1, 2, and Extra, T. F. Asquith. 3, F. Holbrook. 4, Light.—1, R. F. Farnival.

Inspector. R. G. W. Southby.

1, W. H. Crabtree. 2, H. M.

John. 3, I. Ward.

London. 4, T. A. Dunn. 5,

Duke of Sutherland. 6, W.

Med.—Hon.—1, Duke of

H. R. Martin. 2, Duke of

Rich. 3, R. H. Wood. 4, Duke of

2, J. Cook. 3, R. Ashby.

H. R. Martin. 2, R. Win-

ton. 3, H. Baldon. 4, H. and

Sutherland. 5, Rev. H.

3 and 4, Duke of Suther-

land. 5, Duke of Sutherland.

**MAINE PHEASANT.**—Silver-splashed.—1 and 2, Duke of Sutherland. 3, H. Baldon. 4, H. M. King. 5, J. Scott. 6, J. Walker. 7, and other variety. 8, R. W. Brown.

**GAME BIRDS.**—Black-breasted Red.—1 and Extra, H. Baldon. 2, J. Smith. 3, A. Heath. 4, and other variety.—1, J. Smith. 2, J. Osoch. 3, P. Maitland. 4, H. Baldon.

**HANTAMS.**—Black or White, Clean-legged, not Game.—1, R. H. Ashman. 2, H. Baldon. 3, W. H. Ashman. 4, J. Clancy. 5, J. May. 6, and other variety. 7, Game.—1, 2, and Extra, M. Lane. 3, R. B. Smith. 4, R. A. Schuster. 5, F. Holbrook. 6, F. Hodge. 7, G. Holloway, jun. 8, J. W. Lloyd.

**DORKING.**—Brown.—1 and 2, J. Walker. 3, Duke of Sutherland. 4, P. Unsworth. 5, A. T. Miller. 6, R. Bell. 7, White. 8, J. Walker. 9, and 10, J. Walker. 11, and 12, J. Walker. 13, and 14, J. Walker. 15, and 16, J. Walker. 17, and 18, J. Walker. 19, and 20, J. Walker. 21, and 22, J. Walker. 23, and 24, J. Walker. 25, and 26, J. Walker. 27, and 28, J. Walker. 29, and 30, J. Walker. 31, and 32, J. Walker. 33, and 34, J. Walker. 35, and 36, J. Walker. 37, and 38, J. Walker. 39, and 40, J. Walker. 41, and 42, J. Walker. 43, and 44, J. Walker. 45, and 46, J. Walker. 47, and 48, J. Walker. 49, and 50, J. Walker. 51, and 52, J. Walker. 53, and 54, J. Walker. 55, and 56, J. Walker. 57, and 58, J. Walker. 59, and 60, J. Walker. 61, and 62, J. Walker. 63, and 64, J. Walker. 65, and 66, J. Walker. 67, and 68, J. Walker. 69, and 70, J. Walker. 71, and 72, J. Walker. 73, and 74, J. Walker. 75, and 76, J. Walker. 77, and 78, J. Walker. 79, and 80, J. Walker. 81, and 82, J. Walker. 83, and 84, J. 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only of moderate quality. Jonque Cinnamons were well placed, but we should have reversed the first three awards in Jonque Cinnamons. In Mealy Goldfinch Mules the first was a nice bird, but much like a hen, eyes and wings evenly marked. In the open classes were some grand specimens of every variety, and as a rule the awards were well made. One exception, however, we could not understand—namely, the first in Evenly-marked or Variegated Norwich Jonque birds was really an unevenly-marked bird, while there were many good birds perfectly marked—a point we may be pardoned for looking upon as the summit of all breeding.

**COCHINS.**—1, A. H. Hunt, Rickmansworth. 2, Rev. R. Fielden, Macclesfield Rectory, Derby. 3, R. Russell, Derby. 4, W. G. Waters, F. Holbrook. 5, W. Harvey, R. P. Percival.  
**BRAMA POOTRAS.**—Dark.—1, F. Holbrook, Derby. 2, H. Chawner, jun. 3, E. Ryder, Hyde, Manchester. 4, H. Chawner, jun. 5, Dr. Holmes, C. Coppack, Dr. Holmes, W. Whitaker, M. Leno, F. Holbrook. Light.—1, R. P. Percival, Northenden, Manchester. 2, J. Widdowson, Derby. 3, D. Sealey, Redditch. 4, S. T. Vernon, T. Bold. 5, W. Thorn, H. Feast.  
**GAMES.**—Black Red.—1, F. Ward, Maidstone. 2, C. Spencer, Tulse, & F. Woods, Workshop. 3, F. Sale, Duke of Sutherland. 4, G. Barnesby, J. Filkin, J. Payne, Brown Red.—Medal, J. Richardson, Loughborough. 2, T. Dyson, Halifax. 3, H. E. Martin, Fakenham. 4, Duke of Sutherland, J. Cook. 5, T. Whittingham, J. Stoppard, F. Sale, F. Ward, J. Greenwood. Any other variety.—1, Duke of Sutherland, Stoke-on-Trent. 2, G. Barnesby, Derby. 3, F. Sale, Derby. 4, E. Bell, C. J. Moulds.  
**GAMES.**—Coke.—1, Duke of Sutherland. 2, H. E. Martin. 3, G. Lucas, Mansfield. 4, T. Spencer, W. Beresford, F. Sale. 5, W. T. Everard, F. Sale, E. Merrin.

**HAMBURGERS.**—Gold and Silver-pencilled.—Medal, Duke of Sutherland. 1, H. Pickles, C. W. Gibbs, Sutton Bridge. 2, H. Kidger, C. F. W. Meynell, W. Dixon, jun. 3, W. Ballam, Gold and Silver-spangled.—1, Duke of Sutherland. 2, T. E. Jones, Wolverhampton. 3, H. Pickles, Ebury, Leeds. 4, J. Overend, H. Blackley, R. E. Atkin, jun. 5, May, S. W. Hallam. 6, S. W. Hallam.  
**BANTAMS.**—Game, Black and other Red.—1, Shumack & Duff, Southwell. 2, D. Warren, Syston. 3, A. C. Bradbury, Nuthall. 4, T. Siddons, Shumack and Duff, J. Mayo. 5, F. Sale, A. J. Nixon. Any other variety.—Medal, J. W. Lloyd, 2, R. H. Ashton, Mottam. 3, J. Padford, Worcester. 4, J. W. Lloyd, M. Leno, A. C. Bradbury. 5, A. & W. H. Silvester, H. Draycott, D. E. Wingfield, J. Mayo. 6, J. Wright, C. Clapham, W. Harvey.  
**ANY VARIETY.**—Single Cock.—1, Duke of Sutherland. 2, R. Hill, Nottingham (Black Spanish). 3, J. F. Dorking (Dorking). 4, W. E. Smith (Cochin). 5, J. Payne (Buff Cochins). 6, H. J. Storer (Dark Brahmas). 7, E. Pym (Dorking and Houdans). 8, Miss Murray (Houdans).  
**ANY VARIETY.**—1, G. W. Boothby, Louth (Golden Poland). 2, W. Outlack, jun. Littleport (Crève Coeur). 3, Duke of Sutherland. 4, A. & W. H. Silvester, R. Hill (Black Spanish). 5, Wood (White Dorkings). 6, Capt. Fielden (Burmese). 7, J. Pickering (Golden Poland). 8, Feast, J. W. Holden (Spanish). 9, C. W. Gibbs (Crève Coeur). 10, C. D. Farrer. 11, C. W. G. Waters (Crève Coeur). 12, E. Wood (Crève Coeur). 13, J. C. Part.  
**SELLING CLASS.**—1, J. Staley, Newark (Buff Cochins). 2, T. Siddons (Bantams). 3, J. Richardson (Game). 4, A. C. Bradbury (Bantams). 5, W. Thorn (Dark Brahmas). 6, T. Charvill (Game).

## PIGEONS.

**CARRIERS.**—1 and 2, F. Sale. 3, W. Harvey, Sheffield. 4, W. H. A. Miller. 5, H. Allsopp, A. Roberts, H. Pickworth. 6, H. Parker, R. Hill.  
**FOURAS.**—1, W. Nottage, Northampton. 2, W. Harvey. 3, F. Sale. 4, F. Sale. 5, H. Pickworth.  
**DRAKONS.**—1 and 2, A. McKenna, Liverpool. 3, R. Woods, Crowthill. 4, R. Woods, C. E. Chavasse, J. Wood. 5, A. McKenna (S). 6, C. Yardine, F. Sale (S). 7, R. Woods, W. Smith, W. H. A. Miller, J. Wood. 8, W. Smith.  
**FANTAILS.**—1, J. Walker, Newark. 2, J. F. Loversidge, Newark. 3, F. Sale. 4, J. Walker, S. Swift, J. F. Loversidge, F. Sale, E. H. Hunt, D. Lyon. 5, W. Walker, D. Lyon.  
**TUMBLERS.**—1, A. & W. H. Silvester. 2, R. Woods. 3, F. Sale. 4, A. G. Avenell, R. Woods. 5, E. Horsfall, A. & W. H. Silvester (S). 6, J. Wood. 7, H. W. Hainsworth (S). 8, F. Sale, G. W. Dutton (S). 9, A. Roberts, A. Riddell (S). 10, H. V. Edwards.

**TUMBLERS.**—1 and 2, A. & W. H. Silvester. 3, J. Peace, Burton-on-Trent. 4, J. Peace, F. Sale, J. W. Harding. 5, F. Sale.  
**ANY OTHER VARIETY.**—1, W. Harvey. 2, W. Nottage. 3, A. & W. H. Silvester. 4, Extra, E. W. Webb, Lower Sydenham. 5, A. & W. H. Silvester, F. Sale, A. Riddell (Foreign Tumbler). 6, E. Horsfall, H. Pickles (Ridg). 7, W. Smith (Swallow). 8, F. Clark (Spangled Ioe). 9, W. H. Silvester, H. Draycott (Swallow). 10, A. Leigh (Red Barb). 11, A. G. Avenell (Yellow Jacobins). 12, F. Sale, W. H. A. Miller (Owl). 13, J. Barves, jun. 14, J. W. Harding. 15, Miss Brown (Barb). 16, Beecher (Blue and Dun-checked Antwerp). 17, H. Chawner, jun. (Joe). 18, J. C. Arkwright (English Owl). 19, Foster & Chambers (Magpie).  
**SELLING CLASS.**—1, H. W. Webb (Kite). 2, H. Parker (Carrier). 3, A. & W. H. Silvester. 4, J. E. Harrison, Derby. 5, Red-checked Antwerp. 6, H. J. & W. Harding. 7, C. Hill. 8, D. Lyon. 9, F. Sale. 10, Red-checked. 11, W. Woolley, jun. (Yellow Dragon). 12, H. W. Webb (Yellow Dragon). 13, Cropper.

## CAGE BIRDS.

**NORWICH.**—Clear Yellow.—1, Brown & Gayton, Northampton. 2 and 3, J. Athersuch, Coventry. 4, J. Adams. 5, G. Radford, C. Orme & Ashley. Clear Buff.—1, J. Athersuch. 2, Brown & Gayton. 3, J. Clark, Derby. 4, J. Adams. 5, J. Clark.  
**NORWICH.**—Evenly-marked or Variegated Yellow.—1, Brown & Gayton. 2, J. Athersuch. 3, Orme & Ashley, Derby. 4, R. Whitaker. 5, Evenly-marked or Variegated Buff.—1, Orme & Ashley. 2, A. Upton. 3, Brown & Gayton. 4, C. H. Legge.

**NORWICH.**—Ticked or Unevenly-marked Yellow.—1 and 3, Withheld. 2 and 4, J. Athersuch. Ticked or Unevenly-marked Buff.—1, J. Adams. 2, G. Radford, Derby. 3, R. Whitaker. 4, J. Torr.  
**NORWICH.**—Any variety Clear Yellow.—1, F. Woodward. 2, G. Cox, Northampton. 3, G. E. Russell, Brierley Hill. 4, W. Clark. Any variety Crested Buff.—1, F. Woodward. 2, J. Bexson. 3, G. Cox. 4, W. Sherwin. 5, Orme & Ashley.

**BELGIANS.**—Clear, Ticked, or Variegated Yellow.—1, W. Forth, Pocklington. 2 and 3, J. Horn, Armley, Leeds. 4, B. Bunting. Clear, Ticked, or Variegated Buff.—1, R. Whitaker. 2, J. Moore, Leicester. 3, W. Forth.  
**YORKSHIRE.**—Any variety Yellow.—1, 2, and 3, J. Thackrey, Bradford. 4, R. Pearson, Whitley. 5, L. Bell. Any variety Buff.—1, 2, and 3, J. Thackrey. 4, L. Bell. Dovesbury. 5, R. Pearson.

**LIZARDS.**—Golden or Silver-spangled.—1 and 2, R. Ritchie, Darlington. 3, B. Bunting. 4, S. Bunting (S). 5, S. Bunting. Broken.—1 and 2, S. Bunting. 3 and 4, R. Ritchie.

**CINNAMONS.**—Jonque or Mealy.—1, 2, 3, and 4, J. Adams. 5, J. Adams, Brown & Gayton.  
**GOLDFINCH.**—Any variety.—1, S. Bunting. 2, G. E. Russell. 3, J. Horn. 4, J. Bexson. Dark.—1, Orme & Ashley. 2, G. Cox. 3, J. Bexson. 4, Orme & Ashley, W. Sherwin.

**SELLING CLASS.**—1, J. Adams. 2, J. Horn. 3, R. Whitaker. 4, G. E. Russell, Orme & Ashley, R. Whitaker, S. Bunting, J. Clark, J. Prosser. 5, Orme & Ashley (S). 6, G. Radford, C. H. Legge, J. Clarke, Brown & Gayton. 7, J. Saint. 8, C. H. Legge, W. Evans.

**GOLDFINCH.**—1, E. & R. Ward, Derby. 2, G. Cox. 3 and 4, R. Hodgkinson.

**LYNNES.**—Brown.—1, S. Roberts, Derby. 2, E. & R. Ward. 3, R. Pearson, 4, H. Crossall.

**BRITISH BIRDS.**—Any other variety.—1, T. Goddard, Sadlergate, Derby (Song Thrush). 2, J. Fogg, Burton-on-Trent (Song Thrush). 3, C. H. Legge (Lark).  
**PARROTS.**—1, S. Bunting. 2, W. Holbrook, Derby. 3, S. Richardson, Derby.

## CAGE BIRDS—LOCAL CLASSES.

**BELGIAN.**—Clear or Ticked Yellow.—1, W. Woodward, sen., Derby. Clear or Ticked Buff.—1, W. Woodward, sen.

**NOAIVICH.**—Clear Yellow.—1, R. Whitaker, Darley Abbey, Derby. 2, E. Orme, 3, J. J. Salt, Burton-on-Trent. 4, C. J. Salt, Burton-on-Trent. 5, J. Bexson, Derby. 6, W. Woodward, jun. 7, T. Newbold. Clear Buff.—1, E. Orme. 2, W. Sherwin, Derby. 3, W. Ashley. 4, J. Clarke, Derby. 5, W. Woodward, 6, C. J. Salt. 7, C. Dakin.

**NOAIVICH.**—Marked Yellow.—1, R. Whitaker. 2, J. Clarke. 3, H. Watson, Derby. 4, E. Orme. 5, J. Judge, Derby. 6, W. Sherwin. 7, W. Ashley. Marked Buff.—1, E. Orme. 2, C. J. Salt. 3, H. Watson. 4, H. Wallis, Derby. 5, J. Clarke. 6, R. Whitaker.

**NORWICH.**—Variegated Yellow.—1, R. Whitaker. 2, W. Sherwin. 3, W. Woodward, jun. 4, W. Ashley. 5, C. J. Salt. Variegated Buff.—1, R. Whitaker. 2, E. Orme. 3, W. Ashley. 4, W. Sherwin. 5, W. Jackson, C. J. Salt.

**NOAIVICH.**—Heavily Variegated Yellow.—1, R. Whitaker. 2, A. Wallis. 3, W. Jackson, Burton-on-Trent. 4, E. Orme. 5, H. Watson, J. Judge. 6, C. J. Salt. Heavily Variegated Buff.—1, E. Orme. 2, W. Sherwin. 3, W. Ashley. 4, C. Legge, J. Judge.

**NORWICH.**—Jonque Green.—1, W. Jackson. 2, J. Judge. 3, J. Lowe, Long Eaton. Mealy Green.—1, E. Orme. 2, T. Newbold, Burton-on-Trent. 3, J. Judge. 4, H. Ingman.

**NOAIVICH.**—Variegated Yellow Crested.—1, F. Woodward. 2, H. Watson. 3, J. Judge. 4, J. Judge. Variegated Buff Crested.—1, F. Woodward. 2, R. Whitaker. 3, C. Legge. 4, J. Judge.

**NOAIVICH.**—Buff Crested.—1, F. Woodward. 2, J. Bexson. 3, H. Watson. 4, W. Woodward, jun. 5, R. Hodgkinson. Buff Crested.—1, F. Woodward. 2, E. Orme. 3, J. Judge.

**LIZARDS.**—Golden-spangled.—1, W. Ashley. 2, S. Bunting, Derby. Silver-spangled.—1, W. Scanlan, Derby. 2, S. Bunting.

**LIZARDS.**—Golden-spangled, Broken Cape.—1, W. Ashley. 2, S. Bunting. 3, W. Scanlan. Silver-spangled, Broken Cape.—1, S. Bunting. 2, C. Legge. 3, W. Scanlan. Jonque Goldfinch.—1, T. Newbold. 2, E. Orme. 3, W. Sherwin. 4, C. H. Legge. 5, W. Woodward. 6, W. Ashley. 7, J. Bexson. 8, C. Legge. Mealy, Self.—1, R. Whitaker. 2, E. Orme. 3, A. Upton, Derby. 4, H. Ball, Castle Donington. 5, C. J. Salt. 6, W. Ashley.

**CINNAMONS.**—Marked or Variegated Jonque.—1, J. Judge. 2, C. Legge. Marked or Variegated Mealy.—1, J. Judge. 2, W. Sherwin. 3, A. Upton. 4, R. Whitaker. 5, C. Legge. 6, H. Ingman.

**CANARY.**—Any variety.—1, W. Ashley. 2, J. Bexson. 3, H. Ingman. 4, W. Woodward. 5, W. Woodward. 6, W. Woodward. 7, W. Woodward. 8, W. Woodward. 9, W. Woodward. 10, W. Woodward. 11, W. Woodward. 12, W. Woodward. 13, W. Woodward. 14, W. Woodward. 15, W. Woodward. 16, W. Woodward. 17, W. Woodward. 18, W. Woodward. 19, W. Woodward. 20, W. Woodward. 21, W. Woodward. 22, W. Woodward. 23, W. Woodward. 24, W. Woodward. 25, W. Woodward. 26, W. Woodward. 27, W. Woodward. 28, W. Woodward. 29, W. Woodward. 30, W. Woodward. 31, W. Woodward. 32, W. Woodward. 33, W. Woodward. 34, W. Woodward. 35, W. Woodward. 36, W. Woodward. 37, W. Woodward. 38, W. Woodward. 39, W. Woodward. 40, W. Woodward. 41, W. Woodward. 42, W. Woodward. 43, W. Woodward. 44, W. Woodward. 45, W. Woodward. 46, W. Woodward. 47, W. Woodward. 48, W. Woodward. 49, W. Woodward. 50, W. Woodward. 51, W. Woodward. 52, W. Woodward. 53, W. Woodward. 54, W. Woodward. 55, W. Woodward. 56, W. Woodward. 57, W. Woodward. 58, W. Woodward. 59, W. Woodward. 60, W. Woodward. 61, W. Woodward. 62, W. Woodward. 63, W. Woodward. 64, W. Woodward. 65, W. Woodward. 66, W. Woodward. 67, W. Woodward. 68, W. Woodward. 69, W. Woodward. 70, W. Woodward. 71, W. Woodward. 72, W. Woodward. 73, W. Woodward. 74, W. Woodward. 75, W. Woodward. 76, W. Woodward. 77, W. Woodward. 78, W. Woodward. 79, W. Woodward. 80, W. Woodward. 81, W. Woodward. 82, W. Woodward. 83, W. Woodward. 84, W. Woodward. 85, W. Woodward. 86, W. Woodward. 87, W. Woodward. 88, W. Woodward. 89, W. Woodward. 90, W. Woodward. 91, W. Woodward. 92, W. Woodward. 93, W. Woodward. 94, W. Woodward. 95, W. Woodward. 96, W. Woodward. 97, W. Woodward. 98, W. Woodward. 99, W. Woodward. 100, W. Woodward.

**JUDGES.**—Poultry and Pigeons: Messrs. Crewe and Hutton. Canaries: Messrs. Moor and Harrison.

## WELLINGBOROUGH SHOW OF POULTRY, &amp;c.

THIS was held in the Corn Exchange, Wellingborough, on November 6th and 8th.

**DORKINGS.**—Cock.—1, E. Barker, Stokesley. 2, Mrs. A. Tindal, Aylesbury. 3, J. C. Davies. Hen.—1, Rev. E. Bartram, Berkhamstead. 2, Simpson and Dadds, Bedale. 3, Simpson and Dadds, S. W. Hallam, W. G. Thompson.

**COCHIN-CHINAS.**—Cock.—Cup, Mrs. A. Tindal. 2, R. P. Percival, Northenden. 3, P. Ogilvie, A. F. Faulkner. Hen.—1, Mrs. A. Tindal. 2, R. P. Percival. 3, H. Yardley, A. F. Faulkner. 4, G. F. & A. T. Umpleby, E. J. Draper, H. Yardley, W. Mansfield.

**BRAMA POOTRAS.**—Dark.—Cock.—Cup, H. Lingwood, Needham Market. 2, J. D. Peake, Uppingham. 3, Rev. T. O. Peake. 4, R. Pritchard. 5, Kendrick, jun. 6, Rev. T. O. Peake. 7, Rev. J. P. Wright. Hen.—1, Rev. J. D. Peake. 2, L. O. C. R. Morris. 3, A. H. Robbins, Mrs. S. M. Sealey. 4, E. Pritchard, R. P. Percival, M. Leno, E. Ayre, Harvey & Pratt, H. Lingwood, Rev. J. D. Peake. 5, J. Rook, Mrs. A. Tindal.

**BRAMA POOTRAS.**—Light.—Cock.—1, E. E. Horsfall, Liverpool. 2, Mrs. Peet, Sharnbrook. 3, J. Long, T. Smith, M. Leno, Markyate Street, Dunstable. 4, Mrs. A. Tindal. 5, R. E. Horsfall. 6, R. P. Percival. 7, J. Long. 8, T. Smith, Mrs. Peet, M. Leno, G. B. G. Breese. 9, H. Feast.

**SPANISH.**—Cock.—1, W. Nottage, Northampton. 2, R. Newbold. 3, E. Jackson. 4, J. Harvey. Hen.—1, H. Sawyer, Wellingborough. 2, E. Jackson, Finchfield. 3, J. T. Parker.

**GAME.**—Black-breasted Red.—Cock.—Cup, Harvey & Pratt, Cheddington. 2, J. Callandine, Heanor. 3, J. Mee. Hen.—1, Harvey & Pratt. 2, W. Smith, jun. 3, Rattenford. 4, J. Cook.

**ANY OTHER COLOUR.**—Cock.—1, J. Cook, Worcester. 2, S. Tilley, Northampton. 3, G. Carter. Hen.—1, J. Cook. 2, H. Lotas, Oundle. 3, H. Feast, T. Hancock.

**HAMBURGERS.**—Gold or Silver-spangled.—Cock.—Cup, J. Carr, Swanscoe. 2, W. Riley. 3, H. Feast, J. Robinson. 4, C. Love, T. E. Akeman. Hen.—1, J. Carr. 2, T. Dean, Kighley. 3, J. Calcutt, J. Robinson, T. Love.

**HAMBURGERS.**—Any other colour.—Cock.—1, H. Pickles, Ebury, Leeds. 2, H. Feast, P. Fyfe, Swanscoe. 3, R. E. Horsfall. 4, Long, J. Robinson. 5, F. Faulkner. Hen.—1, F. W. Meynell, Derby. 2, J. Foster, Kettering. 3, H. Pickles, O. Sheppard, W. Dixon, jun. (S).

**ANY OTHER VARIETY.**—Cock.—1, A. & W. H. Silvester, Sheffield. 2, W. Outlack, jun. 3, H. Pickles, Rev. N. J. Ridley, S. M. Sealey, W. L. Blake, H. Feast. 4, A. Clark, W. Mansfield. Hen.—Cup, A. & W. H. Silvester. 2, H. Feast. 3, H. Pickles, Rev. N. J. Ridley, W. Outlack, jun. 4, G. W. Boothby, W. Mansfield.

**SPECIAL SELLING CLASS.**—Cock.—1, J. T. Parker, Northampton (Spanish). 2, Miss Williams, Aylesbury (White Cochins). 3, T. Rogers, The Grove, Crouch End, London. 4, Mrs. Bullin (Poland). 5, W. Page (Game). 6, J. Harvey, Rev. T. C. Peake (Brahmas). 7, Foster, J. Holmes (Dorking cock and Rouen Drake). 8, C. Taylor (Spanish), H. Yardley.

**SPECIAL SELLING CLASS.**—Hen.—1, M. Leno (Brahmas). 2, G. B. C. Breese, Ware (Partridge Cochins). 3, T. Love (Golden Hamburg). 4, Simpson and Dadds (Spanish). 5, E. Horsfall (Dark Brahmas). 6, Rev. T. C. Sealey (Crève Coeur). 7, Ogilvie (Dark Brahmas). 8, Peet (Light Brahmas). 9, Peasmore (White Cochins). 10, J. T. Parker (Spanish). 11, Rev. T. C. Peake (Brahmas). 12, Rogers, J. Holmes (Dorking). 13, E. Ayre (Brahmas). 14, P. Ogilvie (Dark Brahmas). 15, Young and Holmes.

**SPECIAL SELLING CLASS.**—Pair.—1, Rev. T. C. Peake (Brahmas). 2, Miss Woodham, Romney (Houdans). 3, G. B. C. Breese (Partridge Cochins). 4, T. Love (Spanish). 5, E. Horsfall (Dark Brahmas). 6, Rev. T. C. Sealey (Crève Coeur). 7, Ogilvie (Dark Brahmas). 8, Peet (Light Brahmas). 9, Peasmore (White Cochins). 10, J. T. Parker (Spanish). 11, Rev. T. C. Peake (Brahmas). 12, Rogers, J. Holmes (Dorking). 13, E. Ayre (Brahmas). 14, P. Ogilvie (Dark Brahmas). 15, Young and Holmes.

**LOCAL CLASS.**—1, Howe & Robinson, Wellingborough (Game). 2, H. Upton. 3, W. G. Thompson, Wellingborough (Dorking).

**DORKING.**—Any variety.—1, Hon. Mrs. Vernon, Kettering (Rouen). 2, M. Leno (Fancy). 3, A. & W. H. Silvester (S). 4, Rodwell, Hon. Mrs. Vernon (S). 5, Driver, E. Snell.

**BANTAMS**.—Game, Black-breasted Red.—Cook.—1, R. Newbitt. 2, W. Bankerville, Manchester. Ac. A. Newton. T. Howson, Capt. T. Wetherall. Hen.—1, P. Foxwell, Worcester. 2, Capt. T. Wetherall. Ac. Wells & Sherwin. J. C. Davies, R. Brownlie, Capt. T. Wetherall, W. Adams, W. Bankerville.  
**BANTAMS**.—Game, any other colour.—Cook.—1, E. Brownlie. 2, G. Evans, Worcester. Ac. E. & A. Farrington, E. W. Southwood, E. Newbitt. Hen.—1, E. Newbitt. 2, W. Adams, Ipswich. Ac. J. Atkinson, R. Brownlie, H. A. Clark, E. W. Southwood.  
**BANTAMS**.—Any variety not Game.—Cook.—1, M. Leno. 2, W. H. Crews, Etwall. Ac. J. W. Lloyd. Hen.—1, M. Leno. 2, Young & Holmes, Driffield. Ac. E. Pritchard, Wells & Sherwin, W. J. Johnson, J. W. Lloyd.

## PIGEONS.

**POUTERS**.—Cook.—1 and 2, L. & W. Watkin. Ac. Mrs. Ladd, C. Martin. Hen.—1, A. P. Byford, 2, C. Martin. Ac. Mrs. Ladd, L. & W. Watkin, W. Noitgate.  
**CARRIERS**.—Cook.—1, H. Yardley. 2, Mrs. H. Pickworth. Ac. T. K. Cucksey, W. J. Toon. Hen.—1, H. Yardley. 2, W. Larkin. Ac. C. Handley, T. K. Cucksey, W. J. Toon.  
**TUMBLERS**.—Cook or Hen.—1 and 2, H. Yardley.  
**DRACOONS**.—Cook or Hen.—1 and 2, W. Smith. Ac. R. Woods (2), H. Yardley, W. Larkin. Ac. McKensie (2), W. V. Longe.  
**ANY OTHER VARIETY**.—Cook or Hen.—1, C. Martin. 2, H. Yardley. Ac. H. Yardley, L. Allen, G. Barnes.  
**SPECIAL SELLING CLASS**.—Cook or Hen.—1, A. P. Byford. 2, M. Leno. 3, W. A. Dawson. Ac. H. Yardley, L. Allen, L. & W. Watkin, Foster & Chambers.  
**LOCAL CLASS**.—Cook or Hen.—1 and 2, G. Garner. 3, C. J. King.

## CANARIES.

**NORWICH**.—Clear Jongue.—1 and 2, J. Athersuch. vhc. J. Adams. Clear Buff.—1 and 2, J. Athersuch. vhc. J. Adams. Ac. Howe & Robinson.  
**MARKED OR VARIATED**.—Jongue.—1, Martin & Griffin. 2, J. Athersuch. vhc. and he, J. Adams. Buff.—1 and he, J. Athersuch. 2 and vhc. J. Adams.  
**CLEAR OR VARIATED**.—Crested Buff.—1, J. Athersuch. 2, S. Stratford. vhc. J. Adams. Ac. Howe & Robinson. c. Stroud & Good.  
**CHINAMON**.—Clear, Ticked, or Variegated Jongue.—1 and vhc. J. Athersuch. 2 and he, J. Adams. Clear, Ticked, or Variegated Buff.—1 and he, J. Athersuch. 2 and vhc. J. Adams.  
**MULE**.—Cook or Hen.—1 and 2, Stroud & Goode. vhc. J. Athersuch. Ac. Howe & Robinson. c. J. Adams.  
**SELLING CLASS**.—1 and c, Martin & Griffin. 2 and vhc. J. Athersuch. 3, J. Adams. Ac. J. Martin.  
**LOCAL CLASS**.—1, 2, and c, Howe & Robinson. vhc. H. Orton. Ac. J. Hagar.

**PARROTS AND OTHER FOREIGN BIRDS**.—1, F. Simco. 2, G. Murdin. vhc. and he, J. Coakeroff. c. W. Bryant.  
**BATTLING BIRDS**.—Cap. W. G. Thompson. 2, W. Garrod. vhc. W. & T. Wright. Ac. J. Hager. c. Horton.

## RABBITS.

**LEP-MARRE**.—Buck or Doe.—Silver Medal, T. Schofield, jun. 2, E. Pepper. vhc. J. Barker. Ac. T. Harrison, R. Bright.  
**HIMALAYAN**.—Buck or Doe.—1, J. D. Eames. 2, S. Ball. vhc. Miss E. King. Ac. Rev. C. H. Miller, J. Barker, Foster & Chambers, J. M. Atkinson. c. J. M. Atkinson.  
**DUTCH**.—Buck or Doe.—1, T. Schofield, jun. 2, B. Greaves. vhc. B. Greaves, W. Richardson. Ac. Rev. C. Beasley, A. G. Fillingham, W. Donkin, Mrs. H. Pickworth. c. T. Schofield, jun., W. Donkin, J. Tebbutt.  
**SILVER-GRAY**.—Buck or Doe.—Cap. J. Firth. 2, F. Perser. vhc. Miss Firth, H. W. Wright. Ac. Mrs. B. M. Beasley, E. S. Smith. c. T. Schofield, jun., J. Knook, G. Johnson.  
**ANGORA**.—Buck or Doe.—1, T. Henson. 2, J. Martin. Ac. G. O. Livett, J. & G. Hughes. c. H. Hancock, Mrs. B. M. Beasley, J. Martin, J. & G. Hughes.  
**ANY OTHER VARIETY**.—Buck or Doe.—1, C. Robinson (Belgian Hare). 2, E. S. Smith (Silver Cream). Ac. T. Schofield, jun. (Belgian Hare), B. Greaves (Belgian Hare), J. Tebbutt (Belgian Hare), c. F. Ogilvie (Belgian Hare), Miss L. N. Beasley (Belgian Hare), B. Greaves (Belgian Hare).  
**SPECIAL SELLING CLASS**.—Buck or Doe.—1, C. J. King (Dutch). 2, C. Robinson. 3, J. Knook (Patagonian). vhc. T. Lomash (Black-and-white Lop). Ac. T. Lomash (Yellow-and-white Lop), B. Greaves (Belgian Hare). c. B. Greaves (Lop). E. S. Smith (Himalayan).  
**LOCAL CLASS**.—1 and 2, J. Abbot (Lop). 2, T. Lomash (Grey Lop). vhc. Mrs. Butlin (Silver-Gray). Ac. J. Chamberlain (Dutch). c. C. J. King (Lop).

## CATS.

**LONG HAIR**.—Male or Female.—1, Capt. T. Wetherall. 2, Miss H. De Teissier. Ac. T. Weightman, H. Haddon, Capt. T. Wetherall.  
**ANY OTHER VARIETY**.—Male or Female.—1, M. Robins. 2, W. Ball. Ac. F. Coles, J. J. Philp. c. W. H. Percival.  
**JUDGES**.—Poultry: Mr. B. Teesbay. Pigeons: Mr. F. Esquillat. Canaries and Cage Birds: Mr. G. Gayton. Rabbits: Mr. G. Johnson. Cats: Miss Beasley.

**ALEXANDRA PALACE POULTRY SHOW**.—Our reporter asks us to state that the slight errors mentioned by the Secretaries were not his, they were alterations made by ourselves. The Pigeon classes omitted were to have been reported on by another gentleman, who failed to send us any votes.

## SHEFFIELD COLUMBARIAN SOCIETY.

This was held on November 1st, at the Freedom Hotel, Walkley. The awards were as follows:—

## YOUNG BIRDS.

**CARRIERS**.—1, W. Harvey. 2, E. Brown. vhc. J. Deakin. Ac. E. Brown, H. Brown, S. Hill, J. Deakin.  
**POUTERS**.—1 and vhc. W. Harvey. 2, H. Brown. Ac. and c, G. Crookes.  
**TUMBLERS**.—Short-faced.—1, 2, and he, A. Silvester. vhc. S. Hill. Other varieties.—1 and 2, A. Silvester. Ac. W. Harvey. c. S. Hill, J. Smith (2).  
**JACOBIANS**.—1 and c, W. Harvey. 2, J. Smith. vhc. S. Hill. Ac. J. Smith, E. Brown.  
**OWLS**.—English.—1, S. Hill. 2, W. Harvey.  
**TURBITES**.—1 and c, W. Harvey. 2, and he, A. Silvester.  
**DRACOONS**.—1, J. Smith. 2 and he, S. Hill.  
**ANTWERPS**.—1 and 2, J. Deakin. vhc. S. Hill.  
**FANTAILS**.—1 and 2, S. Hill. 2, J. Smith.  
**NUNS, SWALLOWS, OR MAGPIES**.—1 and he, W. Harvey. 2, G. Crookes.  
**OTHER VARIETIES**.—1, 2, and he, A. Silvester. 3, W. Harvey.

## OLD BIRDS.

**CARRIERS**.—1 and 2, W. Harvey. vhc. H. Brown, J. Smithers. Ac. J. Deakin, H. Brown, c. J. Deakin, S. Hill.  
**POUTERS**.—1 and 2, W. Harvey. Ac. H. Brown (2), G. Crookes. c. G. Crookes.  
**TUMBLERS**.—Short-faced.—1, 2, and vhc. A. Silvester. c. H. Brown. Other varieties.—1, Extra 2, and vhc. A. Silvester. 2, W. Harvey.  
**JACOBIANS**.—1, W. Harvey. Ac. J. Smith, E. Brown.  
**OWLS**.—1, G. Crookes. 2, S. Hill. Ac. H. Brown.  
**TURBITES**.—1, 2, and c, A. Silvester. Ac. E. Brown.  
**DRACOONS**.—1, W. Harvey. 2 and he, S. Hill. c. J. Smith.

**ANTWERPS**.—1 and vhc. W. Harvey. 2, J. Smithers. Ac. J. Deakin (2), J. Smithers, H. Brown. c. S. Hill.  
**FANTAILS**.—1 and vhc. W. Harvey. 2, E. Brown. Ac. S. Hill (2).  
**FANTAILS**.—1, J. Smith. 2, E. Brown.  
**OTHER VARIETIES**.—1, W. Harvey (Trumpeter). 2 and Extra 2, A. Silvester (Spangled Ice and Isabelle). Extra 3 and vhc. G. Crookes (Nuns). Ac. W. Harvey (Runt), A. Silvester (Blondinet and Bald Ice).  
**JUDGES**.—Mr. E. Hutton.

## NEWCASTLE-UPON-TYNE SHOW.

This Exhibition of poultry, Pigeons, Canaries, and other cage birds was held in the Corn Exchange, Newcastle, on November 4th and 5th. The total of entries reached 1188, forming altogether a magnificent show. The entries in the three sections numbered as follows:—Poultry and eggs, 274; Pigeons, 692; Canaries, Mules, and British and foreign birds, 222. The carrying-out of the entire Exhibition reflects credit to the Committee of Management and Hon. Sec., H. O. Blankinship, Esq. No less than fifteen silver cups and ninety gold medals, the latter of the value of £1 each, and awarded as first prizes in most of the classes, were given away. We are only able this week to publish the awards of the cage birds.

## CANARIES.

**BELGIANS**.—Yellow or Yellow-marked.—1, 2, and vhc. J. Rutter, Newcastle (2). Buff or Buff-marked.—1, 2, medal and vhc. J. Rutter. vhc. W. Pearson, Dinnington O.illery; G. Turnbull, Newcastle. Dun or Dun-marked (nearest Belgian).—1, 2, and he, W. Scott, Quay-on-Tyne. Ac. T. Dobson, Newcastle. c. W. Pearson; Hackworth & Brown, Newcastle.  
**GLASGOW DOWNS**.—Yellow.—1, T. Bruce, Shotley Bridge. 2, J. Smeaton, Tweedmouth. Ac. J. Fraser, Newcastle. 3, J. Fraser, Redhead.  
**NEWCASTLE**.—1, Clark. Buff.—1, W. Brewis, Newcastle. 2, W. Wallace, Newcastle. c. W. Wallace; R. Gilhepsy, Blaydon-on-Tyne; G. Turnbull, Yellow or Buff marked.—1, W. Brewis. 2, G. Forsyth, Spittal, Berwick. Ac. W. Wallace; J. Davison.

**NORWICH**.—Yellow.—1 and medal, R. C. Jobling, Heworth Colliery. 2, J. Baxter, Newcastle. vhc. C. J. Salt, Burton-on-Trent. Ac. J. Thackery, Bradford; R. T. Vase, Sunderland. Buff.—1 and 2, J. Baxter. vhc. C. J. Salt (2). c. J. Thackery, Yellow or Buff marked.—1, R. C. Jobling. 2, T. Cleminson, Darlington. vhc. and he, C. J. Salt. vhc. J. Baxter. c. R. T. Vaux (2).  
**CRESTED**.—Yellow or Yellow-marked.—1, C. J. Salt. 2, R. H. Triffitt, York. Ac. J. Baxter. Buff or Buff-marked.—1, R. T. Vaux. 2 and vhc. J. Baxter. vhc. C. J. Salt; T. J. Knaggs, Newcastle.

**YORKSHIRE FANCIY**.—Yellow or Yellow-marked.—1, J. Thackery. 2, W. & G. Burniston, Middlesbrough. Buff or Buff-marked.—1, Dunn & Harrison, South Shields. 2, R. Pearson, Whitby.

**LIZARDS**.—Gold or Silver-spangled.—1, J. Stevens, Middlesbrough. 2, J. Dixon, Newcastle.

**CINNAMON**.—Yellow.—1, C. J. Salt. 2, G. L. Fox, Sunderland. Buff.—1, J. Fringle, Brunel Terrace. 2, C. J. Salt.—Yellow or Buff marked.—1, W. & G. Burniston. 2, C. J. Salt. c. J. Baxter; R. O. Jobling.

**MULES**.—Goldfinch, Yellow or Buff, nearest to Canary.—1 and medal, J. Purdy, Ainsington Colliery. 2, J. Miller, Newcastle. vhc. W. White, Durham; R. McGee, Gateshead-on-Tyne. c. E. C. Jobling. Yellow or Buff marked.—1, R. Hawman, Middlesbrough; 2 and vhc. J. Baxter. c. J. Stevens; R. C. Pearson. Dark.—1, J. Stevens. 2, R. Hawman.

**ANY OTHER VARIETY**.—J. Stevens. 2, W. H. Batchelor, Whitby.  
**COMMON CANARY**.—1, T. Jamieson. 2, J. Thackery. vhc. J. Smeaton; Dunn & Harrison; Hackworth & Brown.

**GREEN CANARY**.—1, 2, and c, Armstrong & Redhead. vhc. and he, A. Ross, Newcastle. vhc. and he, J. Allison, Long Benton. vhc. M. Grey, Gateshead; T. Dobson, Newcastle. Ac. H. Bishop, Newcastle; W. Swann, Newcastle. c. E. Pearson.

**GOLDFINCH**.—Moulted.—1, W. H. Batchelor. 2, T. Cleminson. Ac. J. Leyburn, Newcastle.

**BROWN LUNNET**.—Moulted.—1, J. Dickinson, Whitby. 2, R. Pearson. vhc. J. Baxter; Dunn & Harrison; G. Stephenson, Gateshead. Ac. H. Winston, Newcastle.

**BURISH BIRDS**.—Any variety.—1 and vhc. J. Baxter. 2, R. Georgeson. vhc. W. & G. Burniston; W. Craze, Newcastle. c. J. Leyburn; R. Pearson; J. Jamieson; Knight & Spencer, Baldock.

**FOREIGN BIRDS**.—Any variety.—1 and gold medal, — Lewis, Newcastle; 2, E. Mackenzie. vhc. J. Grey; H. Howie; T. Barrow, Sunderland.

**SELLING CLASS**.—1, T. Cleminson. 2, Knight & Spencer. Ac. J. Baxter (2). Dunn & Harrison. E. Gilhepsy; J. Murray. c. J. Murray (2); J. Brown (2); J. Thackery; G. Stephenson.

The Judge was Mr. W. A. Blakston.

## THE JACOBIN.

I was very much surprised and disappointed on reading "WILTSHIRE RECTOR'S" article on the Jacobin in the Journal of the 14th of October. From what he had previously written I certainly expected some assistance from him in raising the bird to its old standard, but instead I found a wet blanket. "WILTSHIRE RECTOR" tells the Jacobin fanciers that they are all right and their birds very pretty, and then he goes off the subject and away into marking—a point not under discussion at all, and one of small importance in comparison with the shape and feathering of the bird, points in which the modern bird is so glaringly deficient that they look like half-bred beside the true old type. He thinks the mane and rose great beauties, and at the same time laments the loss of the long, thin, soft-feathered birds; but if he will think it over again he will, I have no doubt, see that such birds could not have a mane, and therefore no rose, as it requires short stiff feathers to form the mane, a vile thing to come to be reckoned a beauty; so that I cannot see that they could exist together.

I must also differ from "WILTSHIRE RECTOR" about what he calls artistic beauties and fanciers' beauties. I hold that with the old fanciers they had artistic beauty of the highest order in their eye when they formed their standards of the Pouter, Carrier, &c., as anyone may see by looking at the descriptions of the different varieties where true lines of beauty are laid down. They did not say a bird must measure so much. The

points aimed at beyond all others were elegance of shape, graceful action, and the sound colouring tastefully disposed: these are certainly not opposed to artistic beauty.

"WILTSHIRE RACON'S" proposal to give a prize for mottled birds of the old style is, in my opinion, only going a very little way in the right direction, for however good, few will, I think, rank them as equal to the soundly coloured and properly marked birds. The old Reds, which were the finest I ever saw, were gorgeous in colour—(how often I have wished I could breed Pouters of the same brilliance!)—and could not be excelled in other respects by any. If there is to be a prize given let it be for the highest style of bird in every respect, and then I will gladly give substantial support to it, and would desire no better judge than Mr. H. Weir to decide upon their merits. But as Mr. Weir shrewdly remarked that one cause of the deterioration was owing to judges giving prizes to the best in the class however poor it might be, I see no benefit in giving prizes to the least bad in a bad class; therefore if birds not fairly good came forward according to the old standard, then I would withhold the prize or prizes to another season.

In conclusion, I would only remark that "WILTSHIRE RACON'S" defence of English Owls, in which he told their admirers to stick to them, was of small importance compared to his defence of the low-bred bird now styled the Jacobin. No Owl fanciers of taste can see the foreign birds at shows, and of course see their superiority at a glance; but this is scarcely possible with the Jacobin, as, if in existence, they do not appear at shows, otherwise very little writing would be required to point out their superiority to the present so-called Jacobins.—G. UZZ.

**PHILOPHISTERIC SOCIETY.**—In addition to the Crystal Palace Show of Pigeons we would remind our country friends that this Society will hold a meeting on Tuesday evening next at the Freemason's Tavern, Great Queen Street, Lincoln's Inn, and that the Show will consist of most varieties of Pigeons; admission by introduction of a member or on presentation of address card.

## BEE'S TWENTY DAYS HATCHING FROM THE EGG.

UNDER the above heading I observe a letter in the Journal by "B. & W.," endeavouring to prove that worker bees are only twenty days in being hatched from the egg. I am sorry that I did not see Mr. Pettigrew's and Mr. Lowe's controversy to which "B. & W." refers. I think I can prove that worker bees are twenty-one days in being hatched, and this is how I will do it: When we find stock hives weighing 50 lbs. or 60 lbs. three weeks after the first swarms left the parent hive we drive out the bees and put them into empty hives. If second swarms have issued we generally unite the turnouts (as Mr. Pettigrew terms them) to the second swarms. I have swarmed a hive artificially at 6 o'clock P.M., and on the morning of the twenty-second day driven out the bees from the stock hive, and found a few dozen worker bees still in their cells, only they were ready to leave them.—A. COCKBURN, *Cairnie, Aberdeenshire.*

## BRITISH BEE-KEEPERS' ASSOCIATION.

If Mr. Pettigrew will refer to the catalogue he will find that not less than £10 in money was offered at the late Show for "the largest and best harvest of honey in the comb from one stock of bees, under any system or combination of systems," the results of which were duly chronicled in your columns.

I and many others hoped for and looked in vain to see the exhibits of 100, 200, or 300 lbs. of honey, respecting which we in the south have heard so much. Perhaps Mr. Pettigrew or some of his friends may be induced to send an exhibit of two hundred-weight or thereabouts to the next show.—E. LAUBACH CLEAVE, *Hon. Sec., 1, Devonshire Terrace, Marlos Road, Kensington.*

**BEE CASE.**—At the Quarterly Small-Debt Court, held at Aughtersrader on Monday, Sheriff Barclay on the bench, Thomas Miller sued Peter Neish for £1, the value of a hive of bees. From the evidence it appears that Miller and Neish are neighbours, and that both keep bees; that a hive of the former threw off a swarm early in July, which alighted some 10 or 15 yards from Neish's bees, which, being also on the point of swarming, attracted by the buzzing, came off and joined those of Miller. The pursuer alleged that the bees properly belonged to him, while Neish offered to buy Miller's or sell his own to the pursuers. To this, however, Miller would not agree, and Neish taking possession, the action was raised. The Sheriff gave decree for 7s. 6d. the value of Miller's bees, without expenses.—(*Scotchman.*)

**ANTS IN THE HOUSE.**—We find most useful in keeping them away is Keating's Persian powder. It must be used largely at first over tables, floor, shelves, everywhere, and then in about

a month there will be hardly any seen. Afterwards it will be sufficient to sprinkle the floors only every day, bearing in mind that the ants in London are amongst the things that cannot be got rid of permanently, but with never-ceasing care they may be kept out. I tried the meat plan, but though we caught basenfuls, we never subdued them as we have since we tried the powder.—F. W. H.

## OUR LETTER BOX.

**CANARIES' FEET COVERED WITH SCALES (Blue Bell).**—The claws and shins of birds beyond a year old mostly become scaled, which scales may easily be removed either by inserting the thumb nail or a penknife beneath the edge of the same. Operate carefully. You say "they look like corns." If there should be any accumulation underneath the feet it may, perhaps, be caused through dirt gathered from the cage bottom. If so wash the feet gently in some lukewarm water, which will soften the substance, and with the aid of your thumb and finger relieve the feet from the dirt.

**RABBIT ARRANGEMENTS (Mars).**—We see no objection to your proposed arrangements, nor could anyone advise not knowing the place. The dog you mention is probably only changing its coat. If there is any redness of the skin wash the dog with soft soap and water. Give more exercise.

**PRESERVING HIVES AND THEIR COMBS (A Bee-keeper).**—Your hives of combs for swarms next year should be placed or hung up in a dry place where mice and moisture will not injure the combs. In a moist place, such as a room with damp walls, the combs would perish—that is to say, lose their adhesive properties, and be useless for swarms. We preserve all such combs in a garret.

**REMOVING HIVES (J. P., jun.).**—Far better let them winter where they are. In the transfer now to your "cold-house farmery," would cause the sacrifice of many lives among your bees, of essential importance to their well-being. The gain, if any, would not compensate for the loss. Thatch warmly and trust to Providence.

**BEE-KEEPING NEAR LONDON (Ignoramus).**—1, Your bees would certainly find their way home after a day's work, in spite of the enclosed situation of your garden. 2, In an ordinarily good year they would be likely to afford you a margin of profit we doubt not. They would go beyond the limits of the garden you speak of. 3, Mignonette, borage, laurustinus, thyme of all sorts, garden fruit trees are all productive of honey. Of the two former a good succession should be kept up. But trust rather to the forage they would get beyond.

**QUINCE MARMALADE (G. Haddington).**—We did not receive the letter you mention. Gather the fruit when fully ripe and of a fine yellow; pare, quarter, and core it; put the quinces into a saucepan with a little water, and set them on the fire until they are quite soft; then take them out and lay them on a sieve to drain; rub them through and weigh the pulp; boil an equal quantity of sugar to *petite case*, then add the pulp, and stir them together over the fire until it will fall from the spoon like a jelly. The marmalade is then fit to be put into pots, and when cold cover them closely.

## METEOROLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1875.	Barom. at ter at and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.			
Nov.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 3	Inches. 29.33	50.0	deg. 49.7	S.S.E.	deg. 54.5	deg. 52.0	deg. 43.3	deg. 54.5	deg. 42.0	In. 0.014	
Th. 4	29.34	43.3	51.7	S.W.	43.0	53.7	47.5	74.5	43.3	0.010	
Fri. 5	29.36	43.3	45.3	S.W.	43.8	57.1	45.2	59.0	43.3	0.500	
Sat. 6	29.38	55.3	53.4	W.	49.3	57.8	47.9	55.1	49.3	0.000	
Sun. 7	29.47	45.6	44.1	N.	49.0	54.3	37.9	59.3	41.1	0.400	
Mo. 8	29.35	39.0	36.8	N.W.	47.8	47.5	34.1	50.4	36.8	—	
Tu. 9	29.41	35.3	34.4	N.N.E.	45.0	47.3	30.8	54.3	35.4	0.023	
Means	29.45	46.6	45.4		47.8	53.5	41.0	73.1	40.0	1.366	

## REMARKS.

3rd.—Very dull dark day, much warmer, and but little rain.  
4th.—Hazy early; fine till 2 P.M., then cloudy, with a little rain; fine night.  
5th.—Fine till noon, after which it was damp and very dark.  
6th.—A great fall in the barometer during the night; a very stormy morning, occasionally bright, but on the whole a stormy day, and the wind very high.  
7th.—Most beautiful day, but rain commenced about 8 P.M., and it fell heavily at midnight.  
8th.—A fine day throughout, but particularly fine in the morning.  
9th.—Hazy all the morning, and showery from noon, but the rain not heavy; great rise in the temperature during the day, having changed from 35° at 9 A.M. to 50° at 9 P.M.  
Both the barometer and the temperature very variable, and at times rapid in their changes. The mean temperature 2° above that of the preceding week, and the maximum in sun exceeded that of last week by 15°.—G. J. SYMONS.

## COVENT GARDEN MARKET.—NOVEMBER 10.

THERE are no quotable alterations in the supplies, and prices remain substantially the same as last week.

		FRUIT.					
		s. d.	s. d.			s. d.	s. d.
Apples.....	1 sieve 1 0 to 2 0			Peaches.....	doz. 6 0 to 12 0		
Chestnuts.....	bushel 12 0 to 20 0			Pears, kitchen.....	doz. 0 8 0 to 0 8 0		
Figs.....	doz. 0 0 0 to 0 0 0			Pine Apples.....	doz. 1 8 0 to 1 8 0		
Filberts, Cochs.....	lb. 0 5 0 to 0 5 0			Strawberries.....	lb. 4 0 0 to 4 0 0		
Grapes, hothouse.....	lb. 1 0 0 to 1 0 0			Walnuts.....	doz. 1 0 0 to 1 0 0		
Lemons.....	100 0 to 10 0			ditto.....	bushel 4 0 to 10 0		
Oranges.....	100 0 to 10 0						

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	NOVEMBER 18—24, 1875.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.							
18	Th	Royal Society at 8.30 P.M.	47.9	33.9	40.4	25 at 7	5 at 4	18 at 9	59 at 0	20	14 30	322
19	F		48.9	38.5	43.7	27 7	4 4	48 10	30 1	21	14 26	323
20	S	St. Edmund.	48.7	34.6	41.7	29 7	3 4	morn.	35 1	(	14 12	324
21	Sun	26 SUNDAY AFTER TRINITY.	46.6	36.3	42.9	30 7	2 4	4 0	47 1	23	18 57	325
22	M	St. Cecilia.	49.2	34.7	41.9	32 7	0 4	19 1	57 1	24	18 41	326
23	Tu	Society of Arts at 8 P.M.	47.6	34.3	40.9	34 7	59 8	32 2	7 2	25	18 25	327
24	W		47.4	31.7	39.5	36 7	58 8	46 8	18 2	26	18 8	328

From observations taken near London during forty-three years, the average day temperature of the week is 43.5°; and its night temperature 38.9°.

## STRAWBERRY CULTURE—DUC DE MALAKOFF STRAWBERRY.



**S**ELDOM (and rarely honourably) mentioned by our distinguished fragarians is Duc de Malakoff Strawberry. Gratifying indeed it is to find the author of the "Fruit Manual" pronouncing it to be "a very excellent Strawberry," exactly what I have found it in a light shallow soil, which can only be made to grow Strawberries by heavy manuring, in the soil and on the surface. "O. P. P."

Dr. Roden, and others may raise a cry when a departure is made from the system they consider orthodox. Their soil suits the Strawberry so well as to render frequent renewal unnecessary. In fact, I knew a gardener that had Strawberries on the same ground without renewal of plants for over twenty years, and relied upon them (Roseberry) for the supply of preserving fruit. True to his faith (and it were that of a veteran, he having had over fifty years' experience of Strawberries in that soil and place), a futile attempt was made to grow British Queen upon the same system. What, however, with Hautbois run wild, Keens' Seedling, Myatt's Seedling (Filbert Pine), and Elton, really passable fruits were had for dessert and "loads" for preserving.

Different indeed is my practice and soil. His was a strong unctuous loam; mine is a light shallow one, which may not be stirred deeper than a foot or 15 inches. With this latter kind of soil I have at present to do, and, as there is much of a similar kind, a short account of my experience and practice may not be uninteresting. The plants bear the finest fruit the first year, more of it and smaller the second, and in the third season a very moderate crop of inferior fruit, amounting to a waste of land, material, and labour. After the second year the plants either go off—plants here and there—leaving ugly gaps, or become superabundant only of foliage—sterile so far as fruit is concerned. Placing between every alternate row of plants a year old, and fruiting for the first time, a row of 3-inch pots filled rather firmly with good loamy soil, as closely together as they will stand and level, the first runners are laid upon the pots, one in the centre of each, and secured with a wire pin, like a hair pin, cutting off the bine beyond the first runner—the only one layered. Early in July there will be sufficient runners to fill the pots, as we have the choice from the runners of two rows of plants, the pots being placed in alternate rows, and a row is left clear for facility of gathering the fruit without danger of injuring the layered runner-bines. If dry weather ensue water every other day, whilst, if moist weather, watering will not be necessary. In a fortnight the runners will be well-rooted, and within that and three weeks they should be detached from the parent, for if left longer the roots become matted in the pots, and before that takes place they should be planted out. Early Potato-ground will be clear or other crops off, as Peas or Cabbage, and all the preparation given is to manure well and dig in deeply; or if the ground be in good heart

the manure is not always given, but merely dug. The plants are put out in rows 2 feet asunder for the compact growers, as Keens' Seedling, with the plants 1 foot apart; the stronger kinds, as President, require the rows 2 feet 6 inches apart, and the plants 15 inches apart, watering in dry weather until established, and keeping clear of weeds and runners as they appear. In October or early November a mulching is given at least 2 inches thick of short but very rotten manure between the rows and plants, placing near the crowns, but not upon but beneath the leaves. No implement of any kind to be used in the spring and early summer after planting for loosening the soil or removing weeds, for it wants solidification, and this the feet will do in removing weeds; and in a firm soil the Strawberry and everything else is much more fibrous-rooted than in a loose and open soil. Water as much as you like between the rows after the fruit is set and swelling freely, remembering that a good soaking once a-week is worth a surface-wetting every day; but I do not water, and the fruit is always large enough, and it is "big 'uns" we want and have.

Well, we have a heavy crop of course, and have secured what runners are required for planting and forcing, and we cut up every other plant in the rows and clear the other of runners, making all neat and trim. Weeds and runners only trouble us further until autumn, and then in October or November comes the top-dressing as a year previously with short about half-decayed manure, and the following season we have a heavy crop, and clear them off the ground after fruiting, and crop with any winter greens we want. We plant about half the ground under Strawberries every year, and have in return plants a year and two years old, longer than which it is not profitable to continue them. The one-year-old plants will be the staple for dessert, whilst the two-year-old will give some for that purpose and later, and an immensity for the still-room or preserving.

The laying in pots may be considered a trouble, but it is not too great for plants intended to perfect their fruit in pots, and why should a little extra trouble be grudged over those intended to be fruited in the open air? or is not a crop of fruit the first year equal to what is gained from plants left to root as they may, planted some time in summer or autumn, will give the second year, worth striving for? Late planting of self-rooted runners in any soil means loss of a year's crop; for in a strong soil, as in a light, early-planted early-rooted runners will give their finest fruit the first year. Another plan which answers well with me is to plant out the plants which have been forced in rows 2 feet apart and 18 inches asunder in the rows. They never fail to fruit heavily the following season, after which they should be cleared off. I have, however, kept them a second season with satisfactory results.

Runners are never taken of plants other than those fruiting, thereby securing fruitful plants. Any not showing fruit should be rooted out and replaced by fruitful plants from pots, which is easily done when plants are forced. If laying in pots be an objection strips of



turf, cut 4 inches wide and 3 inches deep, laid between the rows grass-side downward, the runners pegged to the centre 4 inches distance apart, and in three weeks cut equidistant between the plants, and planted they are as good or better than from pots. Or if turf may not be had, firm the soil between the rows, every other only, and peg the runners 4 inches distance apart, a row up the centre, and in three weeks thrust a trowel all around each plant about 2 inches from it and lift with a ball, planting and watering well, and little check will be experienced.

The kinds I have reduced to are Keens' Seedling—that form of it and Sir Harry some time since going as Hooper's Seedling, which crops heavily; it is very dark in colour when fully ripe, ovate in form, and in large fruit cockscomb-shaped. I have had fruit of it 2 ozs. in weight and ten and twelve to a pound. This Keens' Seedling, still for all purposes unsurpassed, is our first early, and never fails, but is good for nothing after the second year.

Black Prince I have let die-out, for though it cropped heavily its size was objected to. It does exceedingly well in light soil, giving nice early fruit for dessert and abundance for preserving.

Sir Joseph Paxton is the handsomest of all Strawberries, and excellent.

La Grosse Sucrée is free in growth and bearing, not unlike Duc de Malakoff, but inferior to it for flavour. Of Sir Charles Napier we retain a few, also Oscar, but few they will remain.

Duc de Malakoff follows Keens' Seedling, preceding or with President, and is of a dwarf compact growth, and, considering the size of the berries, prolific. The fruit is very large, cockscomb-shaped if the fruit be at all large, good specimens being frequently 2 ozs. weight (I have had some close upon 4 ozs.), eight and ten to a pound—in one instance six, and though monsters, they are not coarse, or hollow or flavourless; for it is a characteristic of this kind that the fruit, however large and when forced, is always high-flavoured, surpassed by none except British Queen, and approached by no other large kind except Frogmore Late Pine. From its very dark-red colour it is not a showy fruit, and the colour pervading the flesh, as well as externally, is not by some liked; but as fruit is grown to be eaten, its juicy, sweet, and rich flavour will overcome objection to colour.

President, though a strong grower, crops well, and stands wet uncommonly well; but drought in close quarters causes it to mildew. The fruit is large—ten and twelve to a pound in good examples; the heaviest I ever had weighed 2 ozs., and many 1½ and 1½ ozs. Taken all in all it is the best of all Strawberries for a light soil and for forcing.

Lucas, with its dwarf compact growth, fine fruit, and free-bearing, is one of the very best; but it and Duc de Malakoff occasionally have the plants going off from canker, also Dr. Hogg, which is not, however, serious, unless the plants are continued beyond two years.

Hélène Gloede I have added, in view of a late kind superior to Frogmore Late Pine.

To weed-out for a light soil I would leave—1, Keens' Seedling, with a few La Grosse Sucrée and Sir Joseph Paxton; 2, Duc de Malakoff for its size and flavour; 3, President; 4, Lucas; and 5, Hélène Gloede; and to still further reduce to two, Keens' Seedling and President, which for general usefulness are not yet beaten.—G. ARNBY.

### HARDY HEATH CULTURE.

Or these there are now rather an extensive collection, and among them are some of great beauty. All are interesting, even the common *Erica vulgaris* when seen in quantity as on the mountains and moors about the month of August, imparting a rich purple glow to all around. *Erica cinerea* and *E. tetralix*, with their bell-shaped flowers, furnish us with a pleasing diversity to the vulgaris section, while the *Menziesias* are charming evergreen shrubs of low stature, worthy of more extended cultivation, and which cannot fail to please any who may commence their cultivation. The cost of these plants is very trifling, and they are easily procured with the exception of *M. cærulea*, which is rather rare. *M. polifolia alba*, *M. p. atropurpurea*, and *M. empetrifolia* (the last-named being of dwarf habit) are very suitable for making individual beds or planting as edgings to beds of *Rhododendrons*, *Azaleas*, or, in fact, any of the peat earth plants; or if planted in connection with rockwork they are of rare beauty, and are invaluable for such work. All are of easy culture, not requiring after being carefully planted any special attention.

No doubt the native soil of the hardy as well as all other Heaths is peat, but, to those unable to procure such, a soil can be made up to grow hardy Heaths perfectly if leaf or any other well-decayed vegetable mould can be procured, and to this add about an equal quantity of any ordinary free garden soil, with a fair sprinkling of sand to allow the moisture to penetrate freely into the soil, and prevent it from becoming hard, sodden, and sour, as it would have a tendency to do if no sand were used. The plants will flourish in such a mixture in the greatest luxuriance. I have always found that it was of the greatest benefit to them to have an annual top-dressing of about 2 inches of leaf mould, which not only assists in preventing excessive evaporation, but supplies the plants with an ingredient into which their tender and hair-like roots run with the greatest avidity. If it is desirable at any time to increase the stock nothing can be more simple: merely add more sand to the existing leaf mould, into which peg the shoots, when they will very soon emit roots in abundance.

The winter-flowering properties of *E. herbacea carnea* very properly make it an especial and general favourite, while the varieties of *E. vagans* are best for autumn-blooming—indeed, almost the whole season some of the species are in flower.

I name a few of the various sections that I consider specially worthy of cultivation in addition to those named above:—*Ericas vulgaris alba*, *Allportii*, *aurea*, *coccinea dumosa*, *Hammondii*, *rigida*, *Searlei*, *Lawsoniana*; *E. cinerea*, varieties *alba*, *atropurpurea*, *coccinea*, and *rosea*; *E. tetralix*, varieties *alba* and *rubra*; *E. vagans*, varieties *alba*, *carnea*, and *rubra*, as well as *E. ciliaris* and the varieties of *mediterranea*.—J. B. S.

### ROSE ELECTION.—No. 2.

The following lists show how the electors voted:—

Mr. HENRY CURTIS (Curtis, Sandford, & Co.), Devon Rosery, Torquay.

- |                             |                          |
|-----------------------------|--------------------------|
| 1. Marquise de Castellane   | 13. Princess Beatrice    |
| 2. Capitaine Christy        | 14. Paul Néron           |
| 3. Louis Van Houtte         | 15. Madame Berard        |
| 4. Comtesse d'Oxford        | 16. Madame Nachury       |
| 5. Ferdinand de Lesseps     | 17. Hippolyte Jamain     |
| 6. Catherine Mermet         | 18. Reynolds Hole        |
| 7. Mdlle. Eugénie Verdier   | 19. Jean Ducher          |
| 8. Marie Van Houtte         | 20. Marie Guillot        |
| 9. Souper et Notting (Moss) | 21. Duchess of Edinburgh |
| 10. Thomas Mills            | 22. Baron de Bonstetten  |
| 11. François Michelon       | 23. Bouquet d'Or         |
| 12. Etienne Levet           | 24. Beale Johnson        |
|                             | 25. Belle Lyonnaise      |

Mr. CHAMBERLAIN, King's Acre, Hereford.

- |                           |                          |
|---------------------------|--------------------------|
| 1. Auguste Neumann        | 13. L'Esperance          |
| 2. Comtesse d'Oxford      | 14. Le Havre             |
| 3. Louis Van Houtte       | 15. Louisa Wood          |
| 4. Paul Néron             | 16. Annie Laxton         |
| 5. Marquise de Castellane | 17. Reynolds Hole        |
| 6. Capitaine Lamure       | 18. Madame G. Schwartz   |
| 7. Capitaine Christy      | 19. Madame Chate         |
| 8. Mdlle. Eugénie Verdier | 20. Madame Marins Cote   |
| 9. Etienne Levet          | 21. Mdlle. Marie Cointet |
| 10. Sir Garnet Wolseley   | 22. Belle Lyonnaise      |
| 11. Madame Lacharme       | 23. Perle des Jardins    |
| 12. Marie Van Houtte      | 24. François Michelon    |
|                           | 25. Princess Beatrice    |

Mr. GEORGE PRINCE, Market Street, Oxford.

- |                            |                            |
|----------------------------|----------------------------|
| 1. Capitaine Christy       | 13. Auguste Rigotard       |
| 2. Catherine Mermet        | 14. Anna Ollivier          |
| 3. Etienne Levet           | 15. Comtesse d'Oxford      |
| 4. François Michelon       | 16. Claude Levet           |
| 5. Hippolyte Jamain        | 17. Edward Morren          |
| 6. Louis Van Houtte        | 18. Etienne Dupuy          |
| 7. Madame Hippolyte Jamain | 19. Madame Lacharme        |
| 8. Mdlle. Marie Finger     | 20. Madame Caroline Kuster |
| 9. Mdlle. Marie Cointet    | 21. Madame G. Schwartz     |
| 10. Marie Van Houtte       | 22. Madame Nachury         |
| 11. Perle des Jardins      | 23. Pauline Talabot        |
| 12. Marquise de Castellane | 24. Souvenir de Spa        |
|                            | 25. Thomas Mills           |

Mr. G. WHEELER, Warminster.

- |                               |                                 |
|-------------------------------|---------------------------------|
| 1. Louise Van Houtte          | 13. Souvenir de J. Gould Veitch |
| 2. Etienne Levet              | 14. Lyonnais                    |
| 3. Comtesse d'Oxford          | 15. Ferdinand de Lesseps        |
| 4. Catherine Mermet           | 16. François Michelon           |
| 5. Capitaine Christy          | 17. Mdlle. M. Cointet           |
| 6. Paul Néron                 | 18. André Dunand                |
| 7. François Courtin           | 19. Madame G. Schwartz          |
| 8. Duchess of Edinburgh, H.P. | 20. Madame Ballon               |
| 9. Félicien David             | 21. Jean Dalmais                |
| 10. Thomas Mills              | 22. Auguste Rigotard            |
| 11. Edward Morren             | 23. Jean Gros                   |
| 12. Madame Rival Verne        | 24. Pierre Seletsky             |
|                               | 25. Marquise de Castellane      |

Mr. RICHARD SMITH, Worcester.

- |                      |                           |
|----------------------|---------------------------|
| 1. Dupuy-Jamain      | 4. Ferdinand de Lesseps   |
| 2. Edward Morren     | 5. Louis Van Houtte       |
| 3. François Michelon | 6. Marquise de Castellane |



7. Mdlle. Eugénie Verdier
8. Etienne Levat
9. Madame Lacharme
10. Perle des Jardins
11. Marie Van Houtte
12. Perfection de Monplaisir
13. Anna Olivier
14. Annie Laxton
15. Sir Garnet Wolseley

Mr. BENNETT, Manor Farm Nursery, Stapleford, Wilton.

1. Perle des Jardins
2. Etienne Levat
3. François Michelon
4. Duchess of Edinburgh, H.P.
5. Catherine Mermet
6. Belle Lyonnaise
7. Marie Guillot
8. Mdlle. M. Cointet (the very best)
9. Marquise de Castellane
10. Mdlle. Eugénie Verdier
11. Louis Van Houtte
12. Star of Waltham
13. Baron de Bonstetten
14. Auguste Rigotard
15. Marie Opoix
16. Marie Van Houtte
17. Capitaine Christy
18. Comtesse d'Oxford
19. Madame Hippolyte Jamain
20. Madame Lacharme
21. Paul Néron
22. Souvenir de Paul Néron
23. Thomas Mills
24. Madame Camille
25. Hippolyte Jamain

Mr. CHARLES TURNER, Royal Nurseries, Slough.

1. Comtesse d'Oxford
2. Rev. J. B. Camm
3. Catherine Mermet
4. François Michelon
5. John Stuart Mill
6. Etienne Levat
7. Miss Hassard
8. Belle Lyonnaise
9. Louis Van Houtte
10. Marquise de Castellane
11. Mdlle. Eugénie Verdier
12. Madame Hippolyte Jamain
13. Ferdinand de Lesseps
14. Princess Beatrice
15. Sir Garnet Wolseley
16. Marie Guillot
17. Marie Van Houtte
18. Mdlle. Marie Cointet
19. Perle des Jardins
20. Capitaine Christy
21. Madame Berard
22. Edward Morren
23. Le Havre
24. Paul Néron
25. Royal Standard

Mr. GEORGE COOLING, Bathaston Nurseries, Bath.

1. Louis Van Houtte
2. Marquise de Castellane
3. Comtesse d'Oxford
4. Capitaine Christy
5. François Michelon
6. Madame Hippolyte Jamain
7. Reynolds Hole
8. Mdlle. Eugénie Verdier
9. Mdlle. Marie Cointet
10. Etienne Levat
11. Marie Guillot
12. Madame G. Schwartz
13. Paul Néron
14. Souper et Notting (Moss)
15. Arthur Dickson
16. Marie Finger
17. François Courtin
18. Madame Hunnebell
19. Madame Lacharme
20. Catherine Mermet
21. Capitaine Lamure
22. Belle Lyonnaise
23. Marie Van Houtte
24. Perle des Jardins
25. Souvenir de Spa

Messrs. EWING & Co., Norwich.

1. Marquise de Castellane
2. Comtesse d'Oxford
3. Louis Van Houtte
4. Catherine Mermet
5. Mary Turner
6. Duhamel Dumoussau
7. Cheesnut Hybrid
8. Capitaine Christy
9. Mdlle. Eugénie Verdier
10. Marie Guillot
11. Perle des Jardins
12. Mdlle. Marie Finger
13. Reine Blanche
14. Eliza Boëlle
15. Ferdinand de Lesseps
16. Annie Laxton
17. Madame George Schwartz
18. Madame Jules Margottin
19. Madame Lacharme
20. Reynolds Hole
21. Souvenir de Roman Desprey
22. Perle de Lyon
23. Madame Caroline Kuster
24. Peach Blossom
25. Souper et Notting (Moss)

Mr. BENJAMIN B. CANT, St. John Street Nursery, Colchester.

1. Comtesse d'Oxford
2. Capitaine Christy
3. François Michelon
4. Etienne Levat
5. Marquise de Castellane
6. Louis Van Houtte
7. Mdlle. Eugénie Verdier
8. Star of Waltham
9. Thomas Mills
10. Catherine Mermet
11. Marie Van Houtte
12. Perle des Jardins
13. Cheesnut Hybrid
14. Sir Garnet Wolseley
15. Madame Caroline Kuster
16. Madame Lacharme (for pots)
17. Hippolyte Jamain
18. Ferdinand de Lesseps
19. Claude Levat
20. Antoine Mouton
21. Etienne Dupuy
22. Miss Hassard
23. Princess Beatrice
24. Peach Blossom
25. St. George

Mr. H. BLANDFORD, Dorset Nurseries, Blandford.

1. Auguste Rigotard
2. Comtesse d'Oxford
3. Catherine Mermet
4. Capitaine Christy
5. Etienne Levat
6. Louis Van Houtte
7. Marquise de Castellane
8. Mdlle. Eugénie Verdier
9. Mdlle. Marie Finger
10. Mdlle. Marie Cointet
11. Marie Guillot
12. Perle des Jardins
13. Perle de Lyon
14. Rêve d'Or
15. President Thiers
16. Princess Beatrice
17. Madame Odélie Berthod
18. Madame Lacharme
19. Madame G. Schwartz
20. François Michelon
21. Ferdinand de Lesseps
22. Eliza Boëlle
23. Baron de Bonstetten
24. Abbé Brammerel
25. Auguste Neumann

Mr. J. BURRELL, Highbury, Darlington.

1. Louis Van Houtte
2. Etienne Levat
3. François Michelon
4. Capitaine Christy
5. Ferdinand de Lesseps
6. Reynolds Hole
7. Madame Hippolyte Jamain
8. Hippolyte Jamain
9. Cheesnut Hybrid
10. Comtesse d'Oxford

11. Marquise de Castellane
12. Mdlle. Eugénie Verdier
13. Mdlle. Marie Cointet
14. Mdlle. Marie Finger
15. Auguste Rigotard
16. Annie Laxton
17. Marie Van Houtte

Mr. R. W. BRACEY, Flinder, Kingskerswell, Devon.

1. Louis Van Houtte
2. Comtesse d'Oxford
3. Ferdinand de Lesseps
4. Mdlle. Eugénie Verdier
5. Marquise de Castellane
6. Catherine Mermet
7. François Michelon
8. Etienne Levat
9. Marie Van Houtte
10. Thomas Mills
11. Capitaine Christy
12. Le Havre
13. Paul Néron
14. Belle Lyonnaise
15. Princess Beatrice
16. Madame Berard
17. Baron de Bonstetten
18. Richard Wallace
19. Madame G. Schwartz
20. Souvenir de P. Néron
21. Cheesnut Hybrid (not much Tea)
22. Mdlle. Marie Finger
23. Jean Ducher
24. Aline Staley
25. Beattie Johnson

Rev. E. HANDLEY, Baltonsborough.

1. Marquise de Castellane
2. Comtesse d'Oxford
3. Ferdinand de Lesseps
4. Louis Van Houtte
5. François Michelon
6. Thomas Mills
7. Miller Hayes
8. Etienne Levat
9. Capitaine Christy
10. Catherine Mermet
11. Marie Van Houtte
12. Mdlle. Eugénie Verdier
13. Mdlle. Marie Finger
14. Reynolds Hole
15. Marquise de Gibot
16. Madame Louise Lévêque
17. Madame Nachury
18. Madame Caroline Kuster
19. Cheesnut Hybrid
20. Rev. J. B. Camm
21. Miss Hassard
22. Royal Standard
23. J. S. Mill

very promising.

Mr. Handley adds, "I do not consider that since Castellane's year there are twenty-five new Roses worth growing."

Mr. J. SCOTT, Warminster.

1. Ferdinand de Lesseps
2. Louis Van Houtte
3. Mdlle. Eugénie Verdier
4. Marquise de Castellane
5. Paul Néron
6. Comtesse d'Oxford
7. Catherine Mermet
8. Etienne Levat
9. François Michelon
10. Général Douai
11. Capitaine Christy
12. Souvenir de J. Gould Veitch
13. Edward Morren
14. Marquise de Mortemart
15. Princess Beatrice
16. Richard Wallace
17. Madame Nachury
18. Madame J. Margottin
19. Madame Trife
20. Thomas Mills
21. Cheesnut Hybrid
22. Peach Blossom
23. Souvenir de P. Néron
24. Annie Laxton
25. Mdlle. Marie Cointet

Rev. ALAN CHERRIES, Brookham Vicarage, Reigate.

1. Cheesnut Hybrid
2. Capitaine Christy
3. Comtesse d'Oxford
4. Paul Néron
5. Louis Van Houtte
6. Madame Berard
7. Marquise de Castellane
8. Catherine Mermet
9. François Michelon
10. Souvenir de P. Néron
11. Princess L. Victoria
12. Belle Lyonnaise
13. Wilson Saunders
14. Etienne Levat
15. Reynolds Hole
16. Princess Beatrice
17. Mdlle. Eugénie Verdier
18. Mdlle. Marie Finger
19. Perle des Jardins
20. Hippolyte Jamain
21. Duchess of Edinburgh
22. Annie Laxton
23. Madame Lacharme
24. Star of Waltham
25. The Shah

This list was not signed, and the letter accompanying was destroyed before the omission was discovered. It has been placed in the amateurs.

1. Mad. Lacharme (under glass)
2. Mad. la Comtesse de Moussac
3. Mdlle. Marie Finger
4. Mdlle. Eugénie Verdier
5. Princess Beatrice
6. Etienne Levat
7. François Michelon
8. Marquise de Castellane
9. Comtesse d'Oxford
10. Capitaine Christy
11. Louis Van Houtte (glass)
12. Duchess of Edinburgh, H.P.
13. Madame Nachury
14. Madame Hunnebell
15. Madame Louise Leveque
16. Lyonnaise
17. Paul Néron
18. Thomas Mills
19. Dr. Brechemier
20. Reynolds Hole
21. The Shah
22. Marguerite Janin
23. W. W. Saunders
24. Baronne L. Uznall
25. Louise Corbel

Mr. J. HARTON, Warminster.

1. Louis Van Houtte
2. Marquise de Castellane
3. Comtesse d'Oxford
4. Mdlle. Eugénie Verdier
5. François Michelon
6. Etienne Levat
7. Catherine Mermet
8. Capitaine Christy
9. Souvenir de Spa
10. Cheesnut Hybrid
11. Madame Hippolyte Jamain
12. Ferdinand de Lesseps
13. Paul Néron
14. Edouard Morren
15. Pauline Talabot
16. Madame George Schwartz
17. Madame Lacharme
18. Madame Louise Lévêque
19. Princess Beatrice
20. Mdlle. Marie Van Houtte
21. Marie Cointet
22. Eliza Boëlle
23. Duchess of Edinburgh, H.P.
24. Comtesse de Nadailac
25. André Dumand

R. G. BAKER, Esq., Havvtree, Exeter.

1. Marie Van Houtte
2. Catherine Mermet
3. Louis Van Houtte
4. Ferdinand de Lesseps
5. Marquise de Castellane
6. Cheesnut Hybrid
7. Mdlle. Marie Cointet
8. Mdlle. Eugénie Verdier

9. Souvenir de P. Néron
10. François Michelon
11. Etienne Levot
12. Madame G. Schwartz
13. Baron de Bonstetten
14. Capitaine Christy
15. Comtesse d'Oxford
16. Reynolds Hole

Rev. J. B. CAMM, Monkton Wyld, Charnmouth.

1. Marquise de Castellane
2. Comtesse d'Oxford
3. Louis Van Houtte
4. Ferdinand de Lesseps
5. Mdlle. Eugénie Verdier
6. Catherine Mermet
7. Madame Berard
8. Belle Lyonnaise
9. Etienne Levot
10. François Michelon
11. Baron de Bonstetten
12. Marie Van Houtte

Rev. E. N. POORIN, Barby Vicarage, Leicester.

1. Marquise de Castellane
2. Louis Van Houtte
3. Edouard Morren
4. Paul Néron
5. Catherine Mermet
6. Madame G. Schwartz
7. Comtesse d'Oxford
8. François Michelon
9. Etienne Levot
10. Capitaine Christy
11. Mdlle. Eugénie Verdier
12. Emilie Hausburgh
13. Cheesnut Hybrid
14. Reynolds Hole
15. Capitaine Christy
16. Capitaine Lamure
17. Lena Turner
18. Le Havre
19. Richard Wallace
20. Rev. J. B. Camm
21. Anguste Neumann
22. Mdlle. Marie Cointet
23. Baronne L. Uxkall
24. Madame Lacharme
25. Madame G. Schwartz

Rev. F. H. GALE, St. Julian's, Buntingford.

1. Marquise de Castellane
2. Comtesse d'Oxford
3. Ferdinand de Lesseps
4. François Michelon
5. Miss Haasard (very sweet-scented)
6. Mdlle. Eugénie Verdier
7. Princess Beatrice
8. Rev. J. B. Camm
9. Madame G. Schwartz
10. Perle de Lyon
11. Edouard Morren; 12. Paul Néron, large and coarse, in fact "two bloated aristocrats" for my taste, but must be inserted as useful exhibition Boese.
13. Annie Laxton
14. Louis Van Houtte
15. Mdlle. Marie Cointet
16. The Shah
17. Etienne Levot
18. Reynolds Hole
19. Richard Wallace
20. La Souveraine
21. Queen of Waltham
22. Capitaine Christy
23. Duchess of Edinburgh, H.P.
24. Star of Waltham
25. Hippolyte Jamin

Rev. H. DOMERAIN, Ashford, Kent.

1. Baron Bonstetten
2. Comtesse d'Oxford
3. General Von Moltke
4. Louis Van Houtte
5. Madame Lacharme
6. François Michelon
7. Marquise de Castellane
8. Etienne Levot
9. Reynolds Hole
10. Mdlle. Marie Cointet
11. Catherine Mermet
12. Cheesnut Hybrid
13. Comtesse de Nadailles
14. Wilson Saunders
15. Annie Laxton
16. André Dunand
17. Capitaine Christy
18. Ferdinand de Lesseps
19. Madame G. Schwartz
20. The Shah
21. Rev. J. B. Camm
22. Claude Levot
23. Beatie Johnson
24. Marie Van Houtte
25. Jean Pernet

Mr. ROBSON, Torquay.

1. Etienne Levot
2. François Michelon
3. Louis Van Houtte
4. Marquise de Castellane
5. Ferdinand de Lesseps
6. Catherine Mermet
7. Marie Van Houtte
8. Comtesse d'Oxford
9. Mdlle. Eugénie Verdier
10. Reynolds Hole
11. Souper et Notting (Moss)
12. Paul Néron
13. Baronne de Bonstetten
14. Beatie Johnson
15. Belle Lyonnaise
16. Duchess of Edinburgh
17. Capitaine Christy
18. François Courtin
19. Madame Berard
20. Madame Nachury
21. Madame Lacharme
22. Marie Duboué
23. Louise Wood
24. Souvenir de P. Néron
25. Mdlle. M. Finger

### URCEOLINA AUREA (PENDULA).

VERY pretty are the bright golden yellow flowers, beautifully tipped with green, of this plant in October, produced, as they are, in an umbel 9 inches to a foot in height, from which the flowers (seven) droop in a very graceful manner, the flowers following each other—seldom more than three being fully developed at the same time. The flowers are produced before the leaves, those succeed them: hence the plant requires to be kept moist and in a light position during the winter months—in fact at all times; the leaves are not unlike those of the Eucharis, but smaller. Urceolinas only require to be duly supplied with water during growth, withholding it when the

leaves commence turning yellow, and during rest water is required only to keep the soil moderately moist. Ours have no water given them, but the pots are placed where they are subjected to a damping overhead twice daily, and the soil does not at any time become dust-dry. I am no believer in Carlyle's term, "dry as dust" applying to bulbs, or anything else when at rest, or only to those which, in their natural habitat, have considerably more warmth than is afforded them in a cultivated state; for if they do not grow they mature, and we give complete dryness as an equivalent for the greater warmth and some moisture of the torrid zone during the resting period.

Urceolina aurea is a stove bulbous plant, but will do well in an intermediate house, in a cool stove, or warm greenhouse, and a 6-inch pot is sufficiently large for it, with efficient drainage, and a compost of turfy yellow loam three parts, one part each leaf soil, old cow dung, and silver sand. Potting is best done when the plant is in free growth, as it roots freely some time before throwing up the flower stem.

Propagation is effected by offsets, which may be removed at the time of potting, putting each in a pot separately, and of about three times the diameter of the bulb. The bulbs do not quickly arrive at a flowering size. The flowers of this plant are very ornamental, coming in at a time when flowers are scarce.—G. ABBEY.

### PEACH CULTURE—ESTIMATE OF SORTS.

THE culture of Peaches on open walls has been attended with so many failures, even in the most favourable localities, that it has long been regarded as a very speculative affair upon which the most skilful practitioners enter with a certain amount of hesitation. An immature wood-growth, gumming, canker, mildew, curled and blistered foliage, attacks of aphides and red spider, are the chief evils affecting the health of the tree; untimely wet and cold weather are those which are most hurtful to the crop. A strong conviction of the prevalence of much ignorance of the best means of combating these evils, induces me to prefix the estimate of such kinds as are most worthy of notice, with a few brief cultural hints not given fully in former papers, and which are of the highest importance.

IMMATURE WOOD-GROWTH.—Regarded superficially, this evil might be said to arise from a cold dull autumn or the tardy falling of the foliage; but there are other influences often at work very early in the season of growth which affect it much more seriously than the declining temperature of autumn. As the tender spring foliage unfolds itself aphides may frequently be found attacking it, almost singly it may be at first, but swelling to countless numbers with surprising rapidity. The foliage then soon becomes contracted and curled, the growth crippled, stunted, and checked so severely that it often makes very little way till midsummer, and then, unless an unusually favourable autumn ensues, the remaining season of growth is too brief to admit of its becoming thoroughly matured and ripened. A close watch must therefore be kept, and the foliage cleansed from its insidious enemy before it has time to do much mischief. Do not wait till the foliage is curled and the growth crippled, but be prompt in applying the remedy which Nature has provided ready to your hand. Syringe with clean water, follow this with a sponge and more clean water, examining and sponging every foul leaf, then repeat the syringing, taking care to well wash every part of the tree. This is a somewhat tedious operation at a busy season of the year, but it is most effectual and sure. I had to do it repeatedly in the spring and summer of the present year, and am well rewarded for my pains with a fine, strong, clean growth, firm in texture, ripened to the tips, and full of promise for another season. Winter dressings may destroy such insects, eggs, or larva as are deposited in the joints and angles of the branches, but I never have found them quite effectual as a preventive of summer blight, and do not advise them for healthy young trees in full vigour.

The foliage when young is as sensitive and delicate as the flower petals, and sustains much injury from the least exposure to cold east and north-east winds. Let me give an example of this. A fine young tree of Dr. Hogg Peach, planted in a snug corner against a south wall, with a viney sheltering it on the east side, had its foliage so much affected by blister and curl in the spring of 1874 during the prevalence of a north-east wind, that the growth became swollen, crippled, and stunted so much as to affect it for the entire season. I must confess I was puzzled for a time. There was the tree in one of the most sheltered positions in the garden, especially guarded

from the cold wind by which it was evidently affected. I at length came to the conclusion that the cold air, driven with great force upon the roof of the vinery, must then dash off downwards at an acute angle, as one sees rain do—hence the mischief. A wooden screen was then promptly fastened upon the end of the vinery, and a permanent and effectual check given to the “scathing blast,” which since then has done no harm, this tree being especially remarkable now for its fine foliage and strong growth.

Having secured a healthy vigorous growth from spring till autumn, the next point of importance is to remove the foliage as soon as its hold upon the branches becomes loosened. It has frequently been advised to do this with a broom, but I must confess I do not like such rough practice, and more especially when the work is entrusted to boys, as is frequently the case; for I am convinced that the trees may then be so much bruised as to induce canker, gumming, and premature decay. I like to remove the foliage gradually and carefully, so as to admit air and light among the branches to harden the sensitive outside before it is fully exposed. So important do I consider this, that I contrive, if possible, to pass a soft hair-brush over the trees every day or two after the leaves begin to fall till the branches are quite bare. Depend upon it we cannot be too tender in handling the shoots and branches. If greater attention were given to this now and when the pruning and training is done, canker and gumming would be much less common than they are at present; not that I would infer that bruises are the sole causes of these evils, for I have shown in former notes how it is possible for frost or hot sunshine to do much mischief.

**MILDEW.**—This may arise from drought, and also from superabundant moisture, such as the stagnant water of an undrained border. Either cause bears its remedy upon its surface, and I have no need to dwell upon them. There is, however, another source from whence this pest springs, and spreads with greater rapidity and more deadly virulence than from any other, and this is when blood or carrion of any kind is used as a stimulant for the roots. Some years ago I had Peach trees destroyed by mildew induced solely by pouring fresh blood in a trench opened upon the roots. I could also tell of Grape Vines, famous for the splendid annual crops which they had borne for a lifetime, being ruined when they passed into fresh hands by an attempt at renovating the border with garbage from a slaughter-house. Never use fresh blood or carrion as a manure; mix it with soil, let it decay, turn the heap repeatedly, keep it for a year, and it will then be more valuable than guano—perfectly safe, sweet, and free from all those crude substances which are so unwholesome and dangerous.

I append a note of a few select kinds placed in the order of ripening, and invite discussion. It has been said that the Peach has no literature; let us make one for it in the pages of the Journal.

**Early Beatrice.**—This has fruit of medium size, bright red on the exposed side, of a pleasant, agreeable flavour, but not rich. It is one of our most valuable Peaches, ripening early in July. The tree is moderately vigorous.

**Early Rivers.**—A fine and distinct variety, closely following Early Beatrice. The fruit is large, of a pale straw colour with just a tinge of pink, and of most delicious flavour. I have observed a tendency to stone-splitting in one or two fruits, but have not found the bulk of the fruit so affected. The tree is remarkable for its wonderfully vigorous growth and the manner in which the strongest shoots are furnished with triple buds, so that the new and absolutely rampant growth is really splendid—plump, well-ripened, fruiting wood for next season.

**Rivers' Early York.**—The fruit of this is very handsome, round, smooth, and beautifully coloured, of a clear bright red, occasionally mottled. It is large, and produced in great abundance. The growth of the tree is remarkable for its short-jointed wood and close compact habit, presenting a striking contrast to the rampant vigour of Early Rivers.

**Dr. Hogg.**—A distinct and valuable variety. The fruit is large and very handsome, the colour being a brilliant deep red, and so beautifully mottled with lighter shades of the same colour that it invariably attracts attention; nor does it thus attract simply to disappoint, for the flavour is sweet, rich, and excellent. The tree is vigorous, and the deep green foliage is unusually large and handsome.

**Grosse Mignonne.**—A fine old Peach, very prolific and good, quite one of our best midseason varieties. So highly do I value it, that if I were asked to recommend one kind as the best for an amateur, this would certainly have the preference.

**Noblesse.**—This is a splendid kind. The fruit is very large and handsome, and the flavour so delicious that to call a new Peach equal to it in this respect is to give it the highest praise in one's power. The tree is a somewhat delicate grower, but is perfectly healthy under good treatment.

**Belle Baucé.**—A very fine Peach, with large handsome fruit of a deep red colour and of delicious flavour. One does not often meet with this variety, and yet it is most worthy of a prominent position in every collection, the fruit invariably attracting attention by its fine form and beautiful colour. The tree is healthy, but it is only moderately vigorous; and this may in some measure account for its being so little known.

**Barrington.**—An excellent autumn Peach. The fruit is large, somewhat elongated, and is remarkable for its point or nippie, which is very prominent. It is highly coloured, of a deep red, is excellent in flavour, and continues good late in October.

**Walburton Admirable.**—A favourite autumn sort, and deservedly so. The fruit is large and of most delicious flavour, pale yellow in colour, with a tinge of red on the exposed side. It has been termed a shy bearer, but I have found it a most abundant cropper. The tree is very healthy and vigorous.

**Lord Palmerston.**—This is a very late kind, bearing magnificent fruit quite a foot in circumference and most brilliant in colour, but it does not ripen well on an open wall. Its fruit surpassed all other kinds in size and appearance this season, but none of it ripened thoroughly. It was, however, most useful for stewing.—EDWARD LUCKHURST.

## HERBACEOUS PLANTS FOR BEDDING.

ON reading your reply to “A. M. G.” in the Journal for 7th of October I thought it needless to trouble you with any remarks, the subject for consideration being so very limited in its range—viz., the selection of some hardy herbaceous plants of the same height, and to bloom at the same time, as Geraniums; and I could not help agreeing with your implied opinion that there were no such plants in existence. Even now I believe we have yet to discover a hardy plant equal in all respects to the usual summer bedders in duration and profusion of bloom.

But as it appears to me that the object of “A. M. G.” in common with many other amateurs, is to reduce the trouble and expense of keeping tender plants through the winter and of propagating them in heat in the spring, I do not know of any reason why we should confine our attention to hardy herbaceous plants exclusively, there being many available subjects, easy of culture and showy in their foliage or their bloom, that may be raised from seeds or increased by cuttings, and needing only the protection of a cold frame or temporary shelter from severe frosts and continued heavy rains.

I am in doubt whether it is proposed to mix hardy perennials and Geraniums in one bed, or merely to have separate but corresponding beds of each, but this is a matter of detail; and although there are few hardy plants which would associate well with such sprightly companions—and I should advise separate beds of each kind wherever practicable—a hint may be taken, on the other hand, from a chaste and favourite combination often seen in the public parks—a mixture of purple *Violas* and silver-leaved *Geraniums*.

The *Clematis*, though not herbaceous, is hardy and perennial, and may remain undisturbed for years. Two varieties planted alternately, 2 feet apart, one for spring and one for summer and autumn flowering—say *C. Standishi* and *C. Jackmani*—will give a long and nearly continuous succession of bloom of rich blue and purple hues, and may be pegged and trained to any height required. Plants may be turned out of pots at any time when the weather is open, and there is no time like the present. They should not be pruned for this mode of culture, except so far as may be necessary in cutting away the dead wood and to prevent confusion. The bed should be well dug and heavily manured, mulched in June with 2 inches of half-rotten horse or cow dung, and supplied with liberal doses of liquid manure in dry weather. When the flowering is over and the shoots have ripened, dwarf evergreens may be plunged in pots between the stools and will give an agreeable change. About the middle of March the pots must be removed, and the holes filled-in with very rich fresh soil to meet the insatiable appetite of these *Clematises*. If a live edging be considered desirable for this bed, try *Santolina incana* or *Cineraria maritima*, or any hardy plant of a stiff dwarf habit having white or golden variegation in its leaves.

The Tom Thumb varieties of the *Antirrhinum* grow about

12 inches high, and with careful stopping of some of the shoots give a long succession of bloom. Seed may be had mixed, or in several showy and distinct colours. Grow the seedlings till they flower and then take cuttings, keeping them named and separate as with other bedding plants. Perhaps plants may be procurable; if so a season would be saved, the expense being of course greater. Both the Clematis and Antirrhinum like a little chalk or old mortar mixed with the staple soil, but the Snapdragon requires no manure whatever, and might be grown almost without any soil at all.

The Viola, in moist rich soils, and in all but very dry seasons, is a capital bedding plant, including as it does colours not seen in the Geranium family, and its height never exceeds a foot. None of the sorts can be depended upon to come true from seed, but mixed beds from seed of *V. Perfection* and *V. lutea grandiflora* will give a pleasing variety of purple, yellow, white and intermediate shades. The seed should be sown in a warm house, the seedlings hardened off, and planted out in May, when bloom will soon appear and will probably continue far into the autumn. Cuttings of named varieties struck in August will flower early in the year, and old plants divided in spring will give a succession of bloom for the later months. The Viola is perfectly hardy, but unless it has frequent change of soil soon degenerates into insignificance.

*Pyrethrum Prince Arthur* is an improvement on the old double white *Pyrethrum*, being dwarf and free-flowering. Plants from cuttings do not attain a greater height than 12 inches, and bloom profusely all the season. I have tried these cuttings in the open ground, but on the return of spring their place was vacant; and the cold frame is therefore their proper home during the winter. *Pyrethrum Golden Gem*, a new variety of the well-known *Golden Feather*, has small double white flowers which last for many months if the seed be sown early. The foliage is similar to, but not nearly so good as, that of the *Golden Feather*, and becomes rusty when the flowers appear. This comes quite true from seed, and is about 12 inches high when full grown, and is good for a mass where white and yellow are wanted, but as an edging we have no occasion for it.

*Tom Thumb Tropaeolums*, sometimes called *Nasturtiums*, have showy and lasting blooms of many rich colours, and in poor soil they make quite a blaze. Their culture as hardy annuals is too well known to require comment, but cuttings are generally taken when it is desirable to keep the stock true.

*Tagetes signata pumila* has lately been aspiring to the proud position hitherto held by the *Calceolaria*; the latter, however, still holds its ground in rich soils, and may be kept through the winter without fire heat. The *Tagetes*, on the other hand, does better in poor, light, or dry gravelly soils. It is a half-hardy annual with bright yellow flowers, grows from 9 to 12 inches high, and may be raised from seed in the spring as advised for *Viola*.

There are other plants I might mention, but space forbids any further extension of these notes. Those plants I have named need as little attention, and give as little trouble to grow, as we can expect with cultivated plants that would, if neglected, be overrun in one season by our native weeds, or become weeds themselves.

Before closing I should like to add that by leaving herbaceous plants in the beds we invite bare earth and desolation for several months in the year; therefore clear and dig the beds and plant or plunge evergreens, or bulbs, or spring-flowering perennials, or all three, and you will avoid the horticultural bugbear of the age, and help to fill up the dreadful gap in the floral cycle which is almost universally met in places devoted to summer-bedding. Variety and change are in small gardens essential to the happiness of the proprietor and to the enjoyment of friends and neighbours.—F. B. Blackheath.

#### NOTES AND GLEANINGS.

At the meeting of the Metropolitan Board of Works the week before last, it was resolved that the Works Committee should consider the desirability of taking steps for applying to Parliament in the next session for obtaining the FEE OF THE CHELSEA BOTANICAL GARDENS belonging to the Apothecaries' Company, and that the Solicitor to the Board be instructed to give the necessary notices.

We are informed that Mr. Wills, with a generosity that does him credit, gives the GOLD MEDAL which was awarded by the Council of the Royal Horticultural Society for the new

*Dracasnas* to his foreman Mr. F. Bause, and Mr. Wills has given instructions that the inscription be appropriate to Mr. Bause's acceptance of the honour. This is a graceful recognition of the successful hybridist's valuable services.

It is a common opinion that the GUANO on the Chincha Islands is an accumulation of excrements of the thousands of birds swarming there. This is only partly the case. The upper stratum, and much the less, consists of the excrements and remains of birds, as also the excrements and remains of seals (*Otaria*) frequenting the island. The lower, and much larger mass, has been formed in prehistoric times, through the sinking to the sea bottom of excrements of numerous birds that confined themselves to a small region of the sea; thus were produced layers which afterwards were raised with the sea bottom and formed the islands. This mode of deposit of guano is still going on.—(*Chemisches Centralblatt*.)

SOME interesting observations have lately been made by M. Nobbe on the ROOT FORMATION OF SOME OF THE CONIFERS. If seeds of Silver-leaved Fir (*Pinus Picea*), Spruce Fir (*P. Abies*), and Scotch Fir (*P. sylvestris*), be placed in sand which is supplied with a nutritive solution, there is found to be the greatest difference, at the end of a year, in formation of roots by the three. Thus the Spruce Fir had nearly double the number of root fibres of the Silver-leaved Fir, while the Scotch Fir had twenty-four times as many. Similarly, as regards length of root, one year's root-product of the Spruce was double in length that of the Silver-leaved Fir, and the Scotch Fir roots were even six times longer than those of the Spruce, and twelve times the length of the Silver-leaved Fir. As regards above-ground vegetation, the entire surface of the parts, in Spruce, Silver-leaved, and Scotch Fir respectively, was 100, 107, 297, so that the much greater development of the Scotch Fir is here also apparent. It is well known how this tree maintains a large body on small supplies of nutritive material, and how it thrives where Silver-leaved Firs succumb. Even at six months' age it rules a space of ground which ideally may be considered as an inverted cone of 80 to 90 centimetres in height, and nearly 2000 square centimetres of base-surface. The foregoing facts also throw light on the difficulty of transplanting Scotch Firs, a considerable portion of the roots being generally left behind.—(*English Mechanic*.)

ONE of the most important of the late discoveries in chemistry is that made by Professor Mantogazza, of Pavia, that OZONE is generated in immense quantities by all plants and flowers possessing green leaves and aromatic odours. Hyacinths, Mignonette, Heliotrope, Lemon, Mint, Lavender, Narcissus, Cherry Laurel, and the like, all throw off ozone largely on exposure to the sun's rays; and so powerful is this great atmospheric purifier that it is the belief of chemists that whole districts can be redeemed from the deadly malarial which infects them by simply covering them with aromatic vegetation. The bearing of this upon flower culture in our large cities is also very important. Experiments have proved that the air of cities contains less ozone than that of the surrounding country, and the thickly inhabited parts of the cities less than the more sparsely built, or than the parks and open squares. Plants and flowers and green trees can alone restore the balance; so that every little flower pot is not merely a thing of beauty while it lasts, but has a direct and beneficial influence upon the health of the neighbourhood in which it is found.—(*Sanitary Record*.)

THE following gentlemen have consented to act as Judges at Messrs. James Carter & Co.'s Annual Root Show to be held at the Agricultural Hall on November 18th and 19th. Mr. James Brebner, Her Majesty's Norfolk Farm; Mr. A. Blake, Heythorpe Park Farm; Mr. William Brignshaw, Her Majesty's Bagshot Park Farm; Mr. E. W. Booth, Trent Park Farm. Captain Walter of Tangley, Berks, has also consented to act as referee.

LATE STRAWBERRIES.—On Saturday, 30th of October, upon the same stall as before in Nottingham Market (see page 358, October 21st), were exhibited by Mr. Joseph Lamb of Burton Joyce two more fine baskets of Strawberries, even finer than before, and gathered under the same conditions. This I think may be considered the latest date that ripe Strawberries have been gathered from the open field without protection, and considering the cold wet weather we have lately experienced makes the fact the more remarkable; and had the plants been prepared by taking off the first crop when in flower most likely the crop would have been more remarkable still, and shows what might be done with this useful sort—viz., the Vicomtesse

Héricart de Thury, so called; properly I believe the Marquise de la Tour Maubourg, and worth recording.—S. T.

### STAPELIAS.

Of late years the public taste has been of a somewhat advanced type in floricultural matters, and many old favourite garden plants have been forgotten or greatly neglected. In the period preceding the rapid and ever-increasing stream of new varieties of popular flowering plants hothouses were filled with plants which are seldom met with now. Amongst these were the Stapelias. We once found them almost everywhere, but we now seldom see them except in collections where succulent plants are still cherished. There is, however, a visible change in the taste for flowers at the present day, and beauty of form is receiving attention, as well as colouring and the amenability of a plant to rapid propagation. This is seen in the increased demand for succulent plants, which have risen so rapidly in public favour.

Plants which are quaint and distinct in habit are now being sought after, and well are they worthy of the search. The rich collection of these plants at Kew never had so many admirers as they have now, and the noble assemblage of them in the houses of Mr. Peacock at Hammersmith have a greater value in the horticultural world than they ever had before. This gentleman is entitled to the thanks of all lovers of rare and curious plants by the preservation of his collection, and especially for his liberality in placing a contingent from them for public enjoyment at the Alexandra Palace. This extremely valuable loan to the public will do much to popularise these curious plants, and Mr. Peacock even now has a reward in finding that his plants are greatly admired and his generosity appreciated.

The Stapelias are succulent plants from the Cape of Good Hope. They are grotesque in form, and the flowers of many of them are singularly beautiful, but they emit a carrion-like scent. So powerful is this odour that the common blow-fly is deceived by it, and will often deposit eggs in the flower, as if mistaking it for decaying animal matter.

These plants are easily propagated by cuttings or branches, which should be inserted in April, keeping them dry for a week, and then carefully watering them. After the plants are rooted they are best placed in the open air in the full sun, affording them a hot sheltered position. In September they must be placed under glass, and during the winter months they cannot have too light a position. Many succulent plants are ruined by storing them away in dark and unsuitable places during the winter months. In the winter they do not require water, but they do require every ray of light that can be afforded them. In the summer they need to be watered freely. The soil best suited for them is three parts of sound loam and one part of broken bricks.

The species are very numerous, but all of them are curious and ornamental both in habit of plant and form and colour of the flowers. *S. variegata* is one of the most striking, the flowers being pale yellow veined with brown. The engraving, fig. 95, gives a truthful representation of this singular family of plants.—J.

### THE PEAR-TREE SLUG.

The current number of the "Entomologist" contains a life-history of the Pear-tree slug from the pen of its editor, extending to nearly eleven pages of that journal. It is very notable that the history of this annoying and almost disgusting enemy of the orchard was first studied in America, where Professor Peck prepared a valuable memoir, which was published at Boston, and received a gold medal with fifty guineas in cash. This was nearly eighty years since, and subsequently a portion of this memoir was introduced by Harris into his "Treatise on Insects Injurious to Vegetation." Some slight account of it, however, had been given by the illustrious Réaumur, and other continental observers followed in his wake, while in our own land Professor Westwood has chronicled various particulars. As we learn from Mr. Newman's life-history now before us the identity of the English with the American species is questioned by some, the habits at least show a marked similarity. Our author does not debate the point whether there is any truth in the assumption that the slug reached us from America. The native tree, Mr. Newman asserts, is the Sloe. In some districts near London this season it appears to be taking extensively to the Hawthorn hedges, which are much to be pitied, seeing they are so liable to the attacks of insect enemies of several orders. From the

Fig. 95.—STAPELIA VARIEGATA.

article referred to we extract a paragraph or two of special interest. Concerning the imago or perfect fly (*Blennocampa Pyri*), it is merely necessary to state that it belongs to the group of the saw-fly. The head, antennae, body, and legs are a dingy black, and a streak of that hue crosses the transparent wings. Upon the least alarm the insects feign death, and folding themselves together drop to the ground. The females make an abrasion on a leaf or leafstalk with the saw; and the egg, as occasionally happens amongst insects, has an elastic shell, allowing of expansion ere the grub emerges.

Concerning the grub or slug Mr. Newman writes: "They are first observable at the beginning of July, then of course very small, and a succession continues to make its appearance throughout August and September, and even far into October. They glide with extreme slowness over the surface of the leaf, partly by means of elapsers, fourteen in number, which are situated in the under side of the abdomen; in addition to these there are six articulated legs. Except when crawling or feeding

these organs are invisible, being concealed by the body, and its slime or jelly. . . . During the greater part of their existence these slug-worms seem quite destitute of that rambling propensity which is commonly observable in the larvæ of Lepidoptera; indeed, in them rambling would be useless, since the upper cuticle and the parenchyma of the leaf, which constitute their principal food, are always within reach without the trouble of moving. These they consume in a very methodical manner, leaving the lower cuticle entire; this very soon dies, withers, and turns brown, making the whole tree look as though covered with dead leaves." After four or five changes of skin the slug reaches maturity, and "at the last change it loses the jelly-like surface, and appears in a neat yellow skin without any viscosity. This occurs nearly a month after the escape from the eggshell. The head and segmental divisions are now quite as perceptible as in any other species of saw-fly. Henceforward it eats no more, but crawls down the trunk of the tree and buries itself in the earth; at the depth of 3 or 4 inches each forms a neat little oval cell in which to undergo its final changes to a chrysalis and perfect fly. This cell is formed of earth, lined and intermixed with liquid glue secreted in the stomach."

The species is checked in its increase by parasitic enemies of the Hymenopterous sorts, of which nothing very definite is known. Of remedies applied by man the only effective one seems to be powdered hellebore, though sand, ashes, and lime have been perseveringly tried. Our American friends will do things in their own way, and the approved method of administering hellebore to this pertinacious slug is to raise a kind of platform; from this the mixture of hellebore and water is thrown downwards on the affected branches from the rose of a watering-pot. The dose is given at different times, as it serves to kill the fly as well as the slug. Some varieties of the Pear suffer more than others. The proportion of hellebore employed is 1 oz. to one and a half or two gallons of water.

#### NEW BOOK.

*The Rose Garden.* By WILLIAM PAUL. Fifth Edition.  
London: Kent & Co.

This is a new, an enlarged, and a very handsome edition of a work has been many years before the public, and which has become a guide-book to the Rose-cultivators of the present generation. In its present form the work forms a handsome imperial octavo volume of 324 pages, printed on excellent paper, and illustrated with fifteen life-size coloured portraits of some of the finest varieties, and numerous woodcuts. Some of the coloured portraits are beautiful specimens of modern chromolithography, and so beautifully are they executed it is difficult to detect that they are not water colours of the highest artistic flower-painting. Those of Firebrand, Louis Van Houtte, Madame La Baronne de Rothschild, St. George, Madame Levet (very beautiful), and Marie Van Houtte are those which please us best, though all are good.

Of the letterpress we need say nothing; Mr. Paul is so well acquainted with his subject, and is so experienced an author, that such a work coming from his hands comes with authority.

#### CHERRIES IN SWITZERLAND—FRUIT-CULTURE SCHOOLING.

"C. P. P.'s" description of his journey from Lucerne to Paris contains statements which, if not slightly corrected, might convey erroneous impressions as to that part of the Continent. Having been resident in those districts for many years I am able to supplement his notes.

The traveller admires the immense quantities of Cherries, and is very much surprised that the birds have not eaten them. "C. P. P." comes, therefore, to the conclusion that there are no small birds in that country. Your correspondent says, "But we miss abroad our British songsters and robins, and that most useful of all birds the starling." My own observations, however, point quite in a different direction, as not only are the songsters found in Britain represented there, but robins and, as "C. P. P." truly says, that most useful bird the starling, are also found in considerable numbers.

The protection of useful birds is very rigorously carried out in Switzerland and its adjacent countries, and anyone found in the possession of a blackbird or its kindred would speedily be mulcted in a severe fine, the informer receiving half the amount.

But "C. P. P." mentions the birds in relation to the destruction they would cause to the Cherries. It must be borne in mind, however, that were birds to come in such numbers so as, like the arrows of Xerxes' army, to obscure the sun, they would cause no perceptible difference, so enormous are the crops of that luscious fruit produced.

Your correspondent says he believes that that famous liqueur "Kirshenwasser" is produced from the kernels only. In that he is misinformed, as the liqueur is produced from the whole fruit. In fact, several owners of distilleries told me that unless the crops were very scanty they would prefer the kernels to be cast aside.

There may be some idea formed of the extent of the culture, when fine luscious fruit may be bought at one halfpenny per pound. But this holds good with other kinds of fruit, such as Apples, Plums (Quelohen), &c., thousands of tons of the former being annually exported to Northern Germany.

But how is it, it may be asked, that we do not attempt the culture of those fruits on the same scale? So long as tenants are not reimbursed for the improvements carried out on their farms, so long will fruit cultivation on an extensive scale remain in its infancy.

In the countries referred to the land is divided into small holdings, each occupier being the owner; consequently he is constantly endeavouring to make the most of his plot. All his land, whether pasture or under tillage, is planted with fruit trees, tall standards, so as to admit the oxen with the plough to pass beneath them. You may see the peasant trudging home with, perhaps, a dozen of young trees on his back to fill up any vacancies, or to stock a fresh piece of land he has acquired. Lanes and highways in this country, dotted here and there with crooked Elms, are there advantageously lined with Walnuts, Apples, Cherries, &c.

The peasants acquire the love for arboriculture while yet at school. A plot of ground planted with an assortment of fruit trees being generally at the disposal of the schoolmaster and his pupils, he will give them lessons on grafting and budding; explain to them the relative merits of the different varieties, and thus implant knowledge into the young minds which generally bears fruit in after-life. On one occasion I saw half a dozen youngsters clambering up a wild Cherry tree which had previously been looped, and under the direction of the long-coated spectacled wielder of the rod; and they commenced grafting the tree with some new varieties that had been received.

If some such system were adopted in the schools of our agricultural districts it would diffuse practical knowledge among our rising generation, the importance and the results of which could with difficulty be estimated.—A. W., *Heighington*.

#### FROST IN IRELAND—WORMS IN STRAWBERRY POTS.

We had frosts here on seven nights during October—viz., 10th, 4°; 12th, 3°; 13th, 1°; 14th, 4°; 15th, 1°; 17th, 1°; and on the 23rd the mercury fell to the freezing point. The highest minimum on the ground was on the 7th—viz., 47°. Rain fell on twenty-two days out of the thirty-one, the last week being particularly heavy, the quantity being 5.002, or a little over 5 inches. The result is the trees are being fast denuded of their foliage, and a wintry aspect put on. I may mention that the common Beech trees have been singularly beautiful the past three weeks; the coloration of their leaves in their decay has been crimson and gold, giving the landscape a charming effect. Bedding plants are mostly cut-up, but Dahlias are tolerably good as yet where sheltered, but the continual rain is making sad havoc amongst them. One row of eighty plants of Ruby Queen is particularly full and bright; they are screened on the north side by a close hedge.

In answer to "J. H." (page 377 of our Journal), when I forced Strawberries extensively I always contrived to put a good handful of soot over the drainage when putting the plants into their fruiting pots, and, like Mr. Douglas, I found it a good preventive of worms entering the pots, as well as a fine stimulant when the roots reached it, which the glossy foliage soon told. If worms were troublesome, which will sometimes occur if the soil is not carefully picked over when preparing for potting, the best treatment is to turn the plants out of the pots and pick the worms out; or to mix a little lime and soot water, not too strong, and when it has become clear give a watering with the liquid; the worms will rise to the surface,



and can be easily removed.—Geo. CURD, *Belvedere, Co. Westmeath.*

## CHRYSANTHEMUMS

AT THE ALEXANDRA PALACE.

Messrs. W. CUTBUSH & SONS, Highgate, have provided the display in the Alexandra Palace; the plants are arranged for conservatory effect, no attempt at producing grand blooms and gigantic plants having been made. The plants are arranged on an elevated platform down the centre of the great hall, about 120 feet in length, containing five tiers of plants. Of this bank of flowers Chrysanthemums are the staple; amongst which are intermixed hardy Palms, Solanums, Retinosporas, Heaths, Euonymuses, &c., with a few large Musas, green Dracenas, and Dicksonias. The display is very effective and worthy inspection, and the bright colouring of the hall itself is for once subdued by the brighter colours of the Chrysanthemums.

The plants generally are not large, but are admirable examples of conservatory decorative plants, the Pompons especially being dense and well bloomed; and many plants of the large-flowering section are not only dwarf and floriferous, but most of the blooms are of good size and shape. The display includes all the best varieties, and it is noticeable that sorts which have been favourites for twenty years are favourites still. Annie Salter presents a golden mass of compact blooms, stamping it as still good. Aureum Multiflorum is yet brighter and very effective. Princess of Teck, white and pink, is very fresh; and Princess of Wales and Empress of India show to advantage amongst the light-coloured flowers. Elaine, Felicity, and Mrs. G. Rundle are still more pure, and are indispensable in all collections. Jardin des Plantes and Gloria Mundi are very fine, and Mrs. Sharpe and Dr. Sharpe, with George Glennys, are worthy of special note. Most of these plants are in 6 and 7-inch pots, each having about fifty good blooms.

Amongst the best of the Pompons are Golden Aurora, Antonius, La Vogue, and Mr. Aste amongst the yellows; Andromeda, Mrs. Dix, Madame Fould, Madame Martha, and Marie Stuart (a lovely Anemone-flowered variety), and Andromeda rosea are the best of the light and rose colours; and amongst the dark colours are Brilliant, rich crimson; Dick Turpin, very gay; and Miss Julia, a chastely-formed flower, each of the chestnut petals being tinged with gold.

Cut blooms of all the best varieties are included in the display, and which, with fading plants, are renewed from Mr. Cutbush's reserve stores at Highgate. This display is as creditable to the old Highgate firm as the plants are worthy of the splendid hall in which they are arranged.

The display is to be continued until the 27th inst.

AT THE PINE APPLE NURSERY, MAIDA VALE.

We visited this nursery with "great expectations," and we are free to say that they have been amply fulfilled; for the arrangement of the plants in the great conservatory is exceedingly imposing, and the collection has a just claim to be considered as one of the finest exhibitions of the year. It is not fine, however, for a few highly-perfected and massive blooms, neither is it in any way remarkable for trained symmetrical plants, but it is yet a great show of Chrysanthemums.

The plants are grown in the most natural manner, and are as vigorous as good culture could make them, and as floriferous as healthy plants can be. There has been no thinning of the buds and no bending of the branches, but each plant has followed its own habit, and has loaded itself with all the blooms that it was capable of producing. The plants, of which there are about a thousand, are mostly on single stems and afterwards branched into large heads, vary from 5 to 8 feet in height, and the conservatory is one great mass of glowing, soft, and brilliant colours. The health and exuberant foliage of the plants is also very noteworthy—indeed they resemble in this respect plants which had an unlimited range in trenched soil rather than restricted larders of 9 and 10-inch pots.

Amongst the most noticeable varieties of this great display are Aimée Ferrière, silvery white tipped with rose, and very lovely; George Glennys; Prince of Wales, extra fine; Prince Albert, rich crimson; Lady Talfour, Golden John Salter, Jardin des Plantes, Fingal (very good), Sam Weller, White Venus, Eve, White Globe, Ariadne, Empress of India, and Lady Hardinge. Little Harry and Aureum Multiflorum afford proof of their usefulness, and Progne is not only distinct by its rich colour, but is deliciously scented, rivalling almost the scent of Violets. Whether this is an accidental circumstance

we are unable to say, but certain it is that the perfume is remarkable and decided. These are a few of the best of the large-flowered varieties. Noticeable in the Japanese section are Elaine, Fair Maid of Guernsey, Gloire de Toulouse (very fine), and Garnet. Amongst the Pompons the best are Acquisition, Prince of Anemones, Princess Thyra, Lady Margaret, Miss Julia, Aurora Borealis, Bob, and Julie Lagravère. The last-named is not strictly a Pompon, but by its free-blooming character and rich colour it must be considered one of the most useful for decorative purposes and for affording a great supply of cut blooms. This gay collection is now at its best, and is worthy a visit by all who can appreciate this fine autumn flower when grown in a natural manner and without string and stakes, the plants at the same time possessing great vigour and an unusual multiplicity of bloom.

The other collections of plants in this nursery are in excellent health, notably the Azaleas and show Pelargoniums, which are well and extensively grown. Heaths and ornamental-foliaged plants are also as clean and healthy as we expect to find them in a first-class establishment.

## LARGE PEARS.

We have from time to time read in the newspapers surprising accounts of the enormous size Pears and Apples have reached in California and other favoured places in the United States, but I had no idea that we possessed in England either a climate or a soil sufficiently fertile to produce Pears rivaling the fruits of our brother Jonathan. A few days ago I received from Carmarthenshire a box of specimen Pears of such unusual size and beauty, that I think they are worthy of being noticed in the pages of our Journal.

Easter Beurré, 1 lb. 1 oz.; Beurré Superfin, 1 lb. ½ oz.; Durandean, 14½ ozs.; Beurré d'Anjou, 12 ozs.; Marie Louise, 12½ ozs.; Winter Nelis, 10½ ozs.; Gansel's Seckle, 8 ozs.; Zephirin Grégoire, 6½ ozs.; Doyenné du Comice, 1 lb. 6½ ozs.

This last magnificent specimen measured 13½ inches every way. These Pear trees were not delicately nurtured under glass in an orchard house and fed with stimulants, but they grew in the open air, and carried full crops of fruit. The Marie Louise last year produced upwards of 640 fruit, and has yielded another very large crop this year.—C. M., *Vicarage, Gargrave.*

## OUR BORDER FLOWERS—STATICES.

An extensive order of ornamental border plants are the Statice. Some of them are natives of Britain. Under favourable circumstances in the vicinity of some of our large rivers and seacoasts they are very attractive. They are frequently met with in what are termed salt marshes, and are known to many as "Sea Lavender." If not presenting to us the gayest of colours, there is a grace and beauty in many of their habits and flowers that is only to be seen in their own family. They may be planted either on the rockery or in the border. They are moisture-loving plants, but should not suffer from continual saturation. They will grow well in a mixture of good loam, peat, leaf mould, and sand; and are increased by seed and division. When established the plants should be disturbed as little as possible. They are useful where cut flowers are in demand, lasting for a length of time after being cut. Some of them when carefully dried retain much of their original beauty, and are useful for decoration in winter, when flowers are not over-plentiful.

Statice Limonium is one of the best herbaceous plants we have in cultivation. It is useful as a pot plant, and indispensable for exhibition purposes. It lasts a long time in bloom, and ought to be in all gardens. *S. latifolia* is said to be a variety of the above; it is a fine border plant. *S. bellidifolia*, or known by some as *S. globularisifolia*, is a compact-growing kind, adapted alike for the rockery or border. *S. nana* is of neat dwarf habit, and is a good rock plant. *S. incana alba* is a charming plant, and should have a place on all rockeries and borders. There are also *S. alpina* and *S. Gmelini*, and a host of others that need only to be seen to be appreciated. *S. tatarica* is of compact habit, and is one of the best of the family; it is desirable on account of its late-blooming properties. *S. binervosa* is also a useful border plant, but does not remove well, except small young plants are chosen. *Statice ararati*, or *Acantholimon glumaceum*, is worthy of special notice. This species cannot endure much wet, and should have thorough drainage; it should have a sunny situation on

the rockery, for it is not safe to leave it in the ordinary border through the winter. It is a spring-blooming plant of compact habit, and its lovely-coloured blooms claim for it a first place in the spring garden.—*VERITAS.*

### COLE ORTON HALL, No. 1.

THE SEAT OF SIR GEORGE H. BEAUMONT, BART.

It was during a "rift in the clouds" in the period of the midland deluge that I paid a flying visit to this memorable place—memorable alike for its historical associations, its intrinsic beauty, its rocks, dells, Conifers, its monumental en-tablatures, and last, but not least, for the successful practice in fruit, especially Grape production, which has for a period of thirty years been carried on by Mr. Henderson.

The first syllable of Cole Orton is a corruption of "coal," applied to the district on account of the coal pits around, and Orton is a contraction of Overton. It is mentioned as early as the time of Henry III., and after various descents passed by marriage in 1426 to the Beaumont family. After various forfeitures during the war of the "Two Roses" it finally was resumed by the Beaumonts. It was first imparked by one of the Maurewards in the fourteenth century, but the old park was soon destroyed by the establishment of coal mines. The old hall, erected in 1600 by Sir Henry and Lady Beaumont, was destroyed during the civil wars. The present residence, Cole Orton Hall, was commenced building in 1804 by Sir G. H. Beaumont, and finished in 1808.

The mansion is in the French and Gothic style of architecture, and is rich in works of art by the old masters, including many from the easel of the first Sir George Beaumont; it also contains some of the masterpieces of Sir David Wilkie. The grounds are not only beautiful in their arrangement and by the many fine views they command through vistas of foliage, but they teem with interest from their connection with incidents of names renowned in science and literature. At every turn the visitor is reminded of the classic associations of the place by busts, and urns, and rock-engraved poetry. At one place is the Cedar which Wordsworth planted and made famous, at another is the ponderous stone where Mrs. Siddons, Coleridge, and Wordsworth met and held "congenial converse." There is the urn and avenue in memory of Sir Joshua Reynolds, and the "niche in the rock" cut by Wordsworth and Mrs. Wordsworth, and in which a portion of *Ivanhoe* was written by Sir Walter Scott. Having shadowed forth the nature of the place I will attempt to detail some of its more prominent features.

The surroundings of the mansion are heavily wooded, many of the trees where isolated being remarkably fine, while thousands are so closely massed as not to show their individual proportions. They have mostly an undergrowth of evergreens, and it is worthy of note how healthy the Yews are on which the sun can never shine during the summer months, and which proves the value of this shrub for undergrowth. But contiguous to the mansion are open lawns of considerable extent, and which contain many handsome specimens of deciduous trees and Conifers.

Wordsworth would appear to have been the chief adviser in the laying-out of these gardens and grounds, and at the time of their formation he dedicated to Lady Beaumont the following lines on the garden which he planted:—

"Lady! the songs of spring were in the grove  
While I was shaping beds for winter flowers;  
While I was planting green unfading bowers,  
And shrubs to hang upon the warm alcove  
And sheltering wall; and still as fancy wove  
The dream to Nature's blended powers  
I gave this paradise for winter hours—  
A labyrinth, lady, which your feet shall rove.  
Yes, when the sun of life more feebly shines,  
Becoming thoughts, I trust, of solemn gloom  
Or of high gladness you shall hither bring,  
And these perennial bowers and murmuring Pines  
Be gracious as the music and the bloom,  
And all the mighty ravishment of spring."

Thus did Wordsworth write of this winter garden, comprising about 3 acres, every tree of which passed through his own hands, and which are still cherished in their wild stateliness. The "labyrinth" has gone, and the "winter flowers" are overgrown by the "green unfading bowers," save a few old spring herbaceous plants and bulbs which fringe the shrubby beds; but the "perennial Pines" are vigorous, almost majestic, and are living memorials of the poet's love and labours.

The garden, which is known as "Wordsworth's garden,"

is charmingly diversified in character. It contains a romantic dell, bounded on one side by rugged rocks, overshadowed by a gigantic Wych Elm, whose gaunt arms stretch over immense space, and its twisted tortuous roots leap over the sides of the rock, affixing themselves in the crevices below. At the base are Ferns revelling in wild luxuriance. Wending our way under the "unfading bowers" we come to still more rugged Ivy-clad rocks of venerable aspect, and near them a fine marble vase from Pompeii. We pass on—the very atmosphere redolent of romance and poetry—and here is the Grotto, just such a place as one might fancy "where rural fays and fairies dwell," and here we find the niche in the rock before alluded to. It is squarely and cleanly hewn, of sufficient size to form a comfortable resting place, and in which the author of *Waverley* reclined and gave play to his rich imagination. Close by, inscribed on a tablet by Wordsworth himself, are the following lines:—

"Oft is the medal faithful to its trust  
When temples, columns, towers are laid in dust;  
And 'tis a common ordinance of fate  
That things obscure and small outlive the great.  
Hence when you mansion and the flowery trim  
Of this fair garden and its alleys dim,  
And all its stately trees are passed away,  
This little niche, unconscious of decay,  
Perchance may still survive. And be it known  
That it was scooped within the living stone,  
Not by the sluggish and ungrateful pains  
Of labourer plodding for his daily gains;  
But by an industry that wrought in love,  
With help from female hands which proudly strove  
To aid the work, what time these walks and bowers  
Were shaped to cheer dark winter's lonely hours."

Near to this hermit-like retreat we pause to glance at the ruins of an Ivy-covered cottage, reached by an ascent of rude steps. This once formed part of the village of Cole Orton, and was the scene of Sir David Wilkie's famous painting of "An Old Woman Knitting." The old ruin is quite ornamental, and is in admirable keeping with the wild solitude of this part of the grounds. Passing through a stone arch we come to an open lawn, and find many specimens of Conifers of perfect form and in great luxuriance. These, on the smooth lawn and thinly planted, show their graceful outlines and proportion to great perfection. Of *Pinus Morinda* there is a grand example, and *Wellingtonias* and *Deodars* are to be classed amongst the finest in the country. *Thuja gigantea* is 25 feet in height, and *Picea nobilis* is considerably taller, and clothed in its beautiful silvery garb. We pass a grand specimen of *Abies orientalis*, quite 30 feet in height, rich in colour and dense; and *Picea lasiocarpa* is of immense size and vigorous. We hurry past many others, but are compelled to pause at *Abies Douglasii*. This handsome specimen was planted by Mr. Henderson when it was only 15 inches high; it is now 50 feet in height, and has long had crops of splendid cones. *Picea nobilis* has also had cones; it is a fine pyramid, and was itself raised from English seed. *Pinus grandis* is too tall to guess at, and we had no time to measure its height, but it is 30 yards round as it sweeps the lawn. Of *Cedrus deodara robusta* there is a noble specimen, quite distinct from the original type. *Retinosporas* are 8 to 10 feet in height, and *Cryptomerias*, *Cupressuses*, *Araucarias*, &c., four times those heights. The *Araucarias* are exceedingly fine and varied in habit. From some of them seed is regularly saved. In this pinetum are many valuable specimens which I cannot notice, and which are in remarkable health and condition.

But we have not quite done with trees, for on the lawn, in more immediate vicinity of the mansion, we come to examples which compel a momentary glance.

Near the church (an appropriate site) is a fine *Deodar*, which the inscription states was planted by Archbishop Howley on July 30th, 1846, his Grace being then in his 81st year. The church is within the grounds on the margin of the lawn. "Do you care for a church?" asked my guide. Do I care for a church! (it will be an evil day for England when churches are not cared for, but there is not much fear of that being the case), I do care, and more than care, for a church, so I am permitted to enter. I am tempted to dwell on those who have found solace here, but refrain; but I am pleased to see the church is cared for with a loving and a reasonable care. There are a few flowers in it—"Everlastings"—and old family monuments, and "breathings in stone" of Wordsworth. On one of the monuments I note that Sir Henry and Lady Beaumont died in 1807 and 1808 respectively, and another tells us that Sir George Beaumont, the great painter, died February 7th, 1827. The church is an integral part of Cole

Orton, and I am sure the mention of it will be welcomed in these columns.

We leave it, and note next another memorial tree, a magnificent Cedar of Lebanon, planted by Wordsworth and Sir G. H. Beaumont. This tree is near to the mansion, and is a specimen to be proud of. It is of great size and in robust health, and has been sustained by "Nature's kindest powers," and protected by the loving care which the poet invoked in the following lines:—

"The embow'ring Rose, the Asacia, and the Pine  
Will not unwillingly their place resign  
If but the Cedar thrive who near them stands,  
Planted by Beaumont's and by Wordsworth's hands.  
One used the silent art with studious pains,  
These groves have heard the other's pensive strains;  
Devoted thus their spirits did unite  
By interchange of knowledge and delight.  
May Nature's kindest powers sustain the tree,  
And love protect it from all injury;

And when its potent branches wide out-throw  
Darken the brow of this memorial stone,  
Here may some painter sit in future days,  
Some future poet meditate his lays,  
Not mindless of that distant age renowned  
When inspiration hovered o'er this ground,  
The haunt of him who sang how spear and shield  
In civil conflict met on Bosworth field;  
And of that famous youth full soon removed  
From earth, perhaps by Shakespeare self-approved,  
Fletcher's associate, Jonson's friend beloved."

This fine tree not only "darkens the brow of the memorial stone," but overhangs a portion of the mansion, and in a few more years may raise a regret that it was planted on a site where it would not have full scope to expand and show its noble form to advantage.

Near to the terrace walk by the side of the mansion are also other encroaching trees—a row of *Arancarias*. These stately specimens, I think fifteen in number, have a bold appearance in contrast to the light stone of the structure, and are remark-

Fig. 96.—THE FLOWER GARDEN AT COLE ORTON HALL.

ably effective, but have been planted fully too near the walk, or, like Wordsworth's Cedar, they have exceeded the bounds anticipated.

We now cross the lawn for a glance at the flower garden, a view of which is shown in the engraving. Our descent is by a flight of steps. The garden as seen from the terrace is exceedingly fine. The beds are thinly placed and with their masses of flowers, compact Conifers, and fine sweep of lawn—with the massive boundary of *Rhododendrons* on one side and shrubbery on the other, with the rosery as the most distant boundary and the grand views beyond, a combination of fine features is provided such as can seldom be seen at a glance. This garden is just an acre in extent, and is truly beautiful. The boundary of *Roses* demand a note of explanation. The boundary is a sunk fence, and on the slope, which is considerable, the *Roses* are planted. They are on standards, and are planted in about ten rows of nearly 100 yards each. They are of heights sufficient to show distinctly above the terrace wall, forming one glorious bank of blooms which must be seen to be appreciated. But how easy the idea is of being carried out by others! How many are the sunk-fence boundaries to gardens which are destitute of beauty, and what grand banks of *Roses* they might be! *Roses* at Cole Orton are grown by thousands, being special favourites of Sir George H. Beaumont,

and who devotes to them much personal attention. They give undoubted evidence of skill in culture, and generally afford blooms until Christmas: in October they were showing almost as freely as in May.

I must postpone my further remarks on this fine garden, noticing, perhaps, a few more trees, a little more memorial poetry, and something about Grape and Pine Apple growing of a nature not commonly to be met with. It is gratifying to find that a place so fine as Cole Orton is in the care of an owner who not only sustains but increases its natural beauty, whose care it everywhere shadows, as it does the admitted skill of the gardener Mr. Henderson.—J. W.

#### A SEASHORE WEED ON GARDEN WALKS.

It is generally admitted that every garden has its favourite weed, as well as being more or less remarkable for producing one or more crops better than the rest. In some gardens the wild *Convolvulus* is very difficult to expel, in others it may be *Orowfoot*, or possibly some annual weed may persistently make its appearance; while there are two cultivated plants quite as difficult to eradicate as any native weed, and these are *Horseradish* and *Jerusalem Artichoke*, the first-named especially being very tenacious of life. Now and then we also

receive a fresh invasion from abroad or, it may be, a distant part of the country, and for a time the new comer runs riot everywhere. I have recently had an addition to our "weed list" which may be troublesome.

For many years we have been in the habit of coating our walks over with a slight sprinkling of cockleshells obtained from the seashore. The walk, being previously formed of every conceivable substance that would act as a substitute for gravel, is last of all slightly coated over with these shells, which, if not in a broken state at the time, speedily get broken up into fragments often not larger than wheaten chaff or bran, and a comfortable path is the result, unless in places where the weeds grow and the hoe is had recourse to instead of applying salt. I may here remark that where the surface of the walk has been made of a considerable amount of fine gravel or sharp sand the hoe may be used without much harm on level ground; but on hilly walks, liable to flooding from thunder storms and the like, it is not advisable to loosen the surface to cause it to be carried to the bottom by flood water, and in that case salt had better be applied. Now I have heard a good deal said against salt and not a little in its favour, and both may be right to a certain extent; but I confess being an advocate for salt in all cases where the foundation of the walk is of a moderately porous character, but the continued use of salt has a tendency to destroy that porosity. My object, however, is not to show what evils salt may now and then do in the way of soddening a walk, but to point out an instance where it has brought a certain plant of its own with it, and this, too, in the shape of a weed not met with formerly on the spot.

The plant I have to complain of is, I believe, an *Arenaria*—a low-growing spreading plant, the seeds of which doubtless have been imported with the shells, and being a seashore plant it seems to glory in and relish the doses of salt given the walk to destroy the natural weeds of the place, and it occupies a site where it is not advisable to employ the hoe; and I should like to know if any other of your readers have been troubled with it who have shell-covered walks and depend on salting more or less as a means of destroying the weeds. We have not been troubled with it in many places, but where it does find its abode it seems very tenacious of life. I daresay hot water or some poisonous substance would kill it, but I have an aversion to the latter substance, and we are rather too far distant from a building to get hot water handy. Other noxious weeds are destroyed, but in most places there are spots not much trodden on by pedestrians, and it is in such places this pest fixes itself, insidiously spreading itself along the ground; and though not more than 2 inches high is very dense, and its small pale rose-coloured flowers are not without their beauties to the botanists and others, while to the gardener the plant shows itself where it is least wished for, and no doubt others as well as myself would like to know how to expel it by some easy process that would neither disturb the walk nor incur much trouble of another kind. I may at the same time remark that in absolute wear it is nothing like so tenacious of life as Bearbind and many other kinds of weeds, but it is nevertheless a nuisance that it would be better to be rid of, and a ready way to do it will be acceptable; while at the same time it would be well to ask if it is met with elsewhere on walks that have had a covering of sea shells given them.—J. ROBSON.

#### THE LATE REV. WILLIAM HICKEY, M.A.

In our last issue we merely communicated to our readers the intelligence that death had snatched this just and distinguished man from among us. We now proceed to give a few particulars of his useful, retiring, but not undistinguished career. On Sunday the 17th October he performed Divine service in Mulrankin church with his usual vigour. On Friday he felt slightly indisposed, and gradually sank, suffering no pain whatever, until the following Sunday, when he resigned his spirit into the hands of his Divine Master, at the patriarchal age of eighty-eight. His whole course of action has been associated with the state and progress of Ireland during the last fifty years, and many of the schemes propounded by him for the benefit of its people—at one time, perhaps, considered utopian—have since been practically and beneficially realised. He was the eldest son of the Rev. A. Hickey, D.D., rector of Maragh, county Cork; was scholar of St. John's College, Cambridge, where he graduated as A.B., and subsequently took the degree of M.A. in Trinity College, Dublin.

He was ordained in 1811, and appointed to Dunleekney, diocese of Leighlin; became rector of Bannow, in the diocese of Ferns, in 1820; rector of Kilcormusk in 1826; rector of Wexford in 1832, from which he was promoted to the parish of Mulrankin in 1834. Previous to his departure from this town for the new sphere of his spiritual duties an address was presented to him signed by all sects and parties—the late William Whitty, who had been selected the first Catholic Mayor since the Reformation, heading the list, followed by upwards of 130 names. The address was presented by the late Dr. Renwick (Hon. Secretary) in these words:—"It has happily fallen to my lot to be the medium of conveying to you the accompanying address, signed with an unanimity that has never been exceeded, if indeed it has ever been equalled, in any community composed like ours of Protestants, Roman Catholics, and Dissenters. Looking at the state of society in this divided country, never was a higher compliment paid to the character of any individual than this truly representative address embodied; and never was the sentiment *exegi monumentum ære perennius* more faithfully exemplified than in this instance." Therefore we need not add that as a parochial clergyman he was highly valued by his flock; and in his public ministrations, both as reader and preacher, his capabilities were acknowledged to be of the highest order. As a writer he early commenced to advocate the improvement and social progress of his fellow countrymen. So far back as the year 1817 he published a pamphlet on "The State of the Poor in Ireland." Afterwards appeared several letters from his pen under the *nom de plume* of "Martin Doyle," by which name he has been so generally recognised as an author. "Hints to Small Farmers" succeeded those of "Martin Doyle," and were read with deep interest, and the sequel proved with signal advantage, by those for whose welfare they were written. They were followed in rapid succession by the subjoined well-known works:—

"The Hurlers," "Common Sense for Common People," "Irish Cottagers," "Plea for Small Farmers," "Address to Landlords," "The Kitchen Garden," "The Flower Garden," "The Illustrated Book on Domestic Poultry," "Hints on Gardening," "Hints to Small Holders on Planting, Cattle, Poultry, Agricultural Implements and Flax," "Hints on Emigration to Canada," "Hints on Health, Temperance, and Morals," "Book on Proverbs," "The Village Lesson Book," "Cyclopædia of Practical Husbandry," "The Labouring Classes in Ireland; an Inquiry as to what beneficial changes may be effected in their condition."

He also translated from the French "Sermons by Monod," and for a length of time was a regular contributor to "Blackwood's Journal of Agriculture," "Chambers's Journal," and to various other periodicals of the day. In all these publications he took the broadest philanthropic views, studiously avoiding religious and political controversy. His latest production was "Notes and Gleanings of the County of Wexford," a work abounding with statistical facts and information. In conjunction with the late Thomas Boyce of Bannow he started the South Wexford Agricultural Society, and founded the Bannow Agricultural School, which was the first of the kind established in Ireland. He was a member of the Royal Dublin Society, and was awarded their gold medal in recognition of the services rendered to Ireland by his teachings; and Government in granting him a pension from "The Literary Fund" only endorsed the universal sentiment of the empire. For many years he held the commission of the peace for the county Wexford, and no man ever discharged its functions with more fidelity. He died comparatively poor; for, throughout a lengthened span not accorded to many he invariably denied himself that he might be the better able to assist others, and in this lies his most effective and unfading eulogy.—(*Wexford Independent*.)

#### NOTES ON VILLA AND SUBURBAN GARDENING.

ASPARAGUS, SPINACH, AND RHUBARB.—With these the forcing season may be said to commence, and I would say that there are few things, if any, that can be artificially brought into use with so little expense. A little trouble there must be, but that must be thought little of in comparing the success that is likely to attend the efforts to obtain the luxury of a few early dishes of these delicacies at the most unseasonable time of the year. It should be remembered that those who regularly practise the system of forcing these vegetables pay much attention to the proper growth of the stools the year or more previously; because if the crowns are properly developed, and have well ripened off,

the produce will be greater accordingly. The above conditions being duly provided, all that is necessary is the application of sufficient heat to start the crowns into growth. They are not particular as to the place or how they are forced—whether it be by a mixture of dung and leaves covered over pots on the outdoor bed, or by the same heating medium applied to a frame, and the roots taken up carefully from the ground and planted compactly in a bed of soil, or by hot-water pipes in a regularly heated house. By any plan the Seakale must be kept in the dark in order to blanch it properly for the table, but both Rhubarb and Asparagus have a better flavour if light is admitted: this gives them more of their natural colour.

With the exception of Asparagus, which I generally force in a frame, the other two are taken up and put into a room where we generally grow our Mushrooms; not a regular Mushroom house, but the heat is kept up by a heap of dung and leaves thrown up in the middle of the room and refreshed as often as required. There is no difficulty in keeping the heat up to 60° all through the winter, which is quite high enough for Mushrooms, and allows the Seakale and Rhubarb to come on steadily for a fair produce. It will be seen that three important crops are going on at one time, and it is done with a small consumption of heating material, which I am compelled to make the most of. When grown in this way there is little danger of overheating, but in a frame the sudden changes from mild weather to cold cause more heat to be applied; and when it as suddenly changes the reverse way there is a danger of extreme heat, so injurious to these things. The principal points to aim at are a mild bottom heat and very regular, and the heated atmosphere quite as regular in the house, room, or frame, as the case may be. With manure the atmosphere will be sure to be moist enough, or with hot-water pipes it may be necessary to apply a little water occasionally both at the roots as well as on the floor of the house.

In the month of December, when Endive is becoming scarce, some roots of Chicory are forced by the same means and planted in the same manner, and blanched the same way as for Seakale, and there is a regular crop of salads and choice vegetables grown in one room.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR - THE PRESENT WEEK.

### KITCHEN GARDEN.

This is the month that any alterations in the garden should be carried out, and all vacant ground be dug or trenched, but lately rain has been so prevalent as almost to render digging impracticable. Trenching is a very important operation in the kitchen garden. A certain portion of ground should be trenched over annually, and when manure can easily be obtained a layer should always be put into the bottom of the trenches. Nearly all kinds of soil are improved by being trenched, but there can be no rule laid down as to depth, which must be left to the intelligence of the gardener. It is not well, however, to trench ground very deep that has not been moved more than a spit for a generation or more. In a case of this kind we generally work the ground two spits deep, and the following season take two more spits, but shovelling the loose earth out after each. This leaves a hard bottom, but a man with a fork digs this bottom over, loosening it to the depth of say 9 inches, but not turning the subsoil over. Although manure is very expensive here, we use a large quantity upon ground trenched in this manner for most vegetable crops. Peas especially are immensely benefited by the manure being placed at the bottom of the trenches. Our plan is to put in two layers of manure, one at the bottom and the other after a spit and the loose earth has been thrown over it. Working the ground in this way will cause it to produce such a crop in dry seasons as it would not otherwise produce without abundant supplies of water. Some gardens have the water laid on, and an abundant supply is always at hand; but these are highly favoured, and as yet are the exception. Where water has to be carried or carted a considerable distance at a time when work is pressing, it does not require much calculation to see that if this labour can be saved by deep trenching and manuring in autumn and winter the time and money ought to be given at the right time.

This is also a good time for relaying the Box edgings if such work is necessary. Blanks are made in the edgings from various causes. Sometimes the soil is unsuitable, at others the crops spread over the edging, which is a fruitful source of decay. A little good can be done by filling up the gaps with fresh Box, but occasionally it is necessary to replant the whole. The work must not be hurried over, for it is intended to last for many years; and if the lines are crooked where they ought to be straight, or the ground is not level where it ought to be, the edgings will be a constant eyesore. First the gravel is cleared off from the sides into the middle of the path; the Box is then lifted and laid in until the ground is ready. The ground must be dug up, and in doing so the soil that has grown the Box should be

thrown on to the border, and fresh material be returned from the border to supply its place. The ground ought to be trodden down firmly with the feet, and be made quite level by beating it with a spade after raking it previously to planting, and the line that the Box is planted by must be drawn quite tight before the space for the Box is marked off with the spade. The stalks of Asparagus have been cut over, and the beds will be dressed with manure when the ground is harder and more adapted for wheeling upon.

### PEACH HOUSES.

The trees must now be made ready for forcing, if an early crop is desired. When writing on this subject in previous numbers we have always recommended keeping the inside border moderately moist even at this dull period of the year and when the trees are at rest. The same attention is required here as in the vineries; for the Peach has quite as many enemies as the Vine, if not more: aphids, thrips, spider, brown and white scale lodge in the branches of Peach trees at this season. If scale is present it ought to be removed before washing the branches with the same mixture recommended to be used in the vineries. If the inside border has become very dry it ought to be watered at once, but the house should not be shut up until a week or so after; still there is not much danger when the blossom buds are not very far advanced. When Peaches are forced early the utmost care is necessary to keep the roots as well as the branches in a healthy condition. Anything that might check growth would cause the blossoms to drop off at or before the time of setting. When the house is started the temperature must be very low at first, merely shutting up early in the afternoon, and keeping the ventilators a little close. When fire heat is applied it must be with caution.

### MUSHROOM HOUSE.

This is a bad time for collecting material for the beds, as the continued damp atmosphere prevents the manure from drying; but if it is spread out in an airy shed and turned over daily the moisture will be thrown off when the weather is favourable. The late Mr. Fish recommended dry litter or straw to be cut up and mixed with the manure when it was very short and damp. We never tried this plan, but it would no doubt answer very well, and sufficient heat could be obtained from it. The whole would have to be thrown together in a heap to ferment and to throw off the rank steam. If beds in bearing become dry they must be watered, after a gathering has been made, with water about 85°; the water should be applied through a fine rose gently, so that it may soak into the beds equally, instead of running off and down the sides. Woodlice are very troublesome when the bed shrinks from its becoming dry; they find an excellent harbour between the wall and the dry manure. Boiling water may be poured down the fissure, which will destroy them; or if they cannot be reached in this way, a few boiled potatoes wrapped up in dry hay and laid upon the surface of the beds will attract them in large numbers, when they can be shaken out from the hay and destroyed. If a bed should lose heat before the Mushrooms appear some dry straw or hay may be laid on the surface; this will retain heat and moisture, and frequently causes a crop to appear which might otherwise have failed; the crop will also be produced a few days earlier.

*Seakale and Rhubarb.*—A few pots of Seakale may now be removed to the Mushroom house. It will be necessary either to invert a pot over each, or else place the pots where the Seakale will be in a dark place. Rhubarb does not require so much attention, the roots are merely lifted and placed together on the floor of the house. The roots of both must be kept sufficiently moist.

### CUCUMBER HOUSE.

A large number of Cucumbers are not required from our house, and we do not hurry the plants; 65° at night or 60° is our average temperature. If the weather should be severe we would rather let the temperature fall to the lowest figure than over-heat the pipes to raise the temperature if it had fallen. A very moist atmosphere at this season is not desirable, for it causes a watery growth and thin leaves, which will not resist the effects of cold and dull weather.—J. DOUGLAS.

## TRADE CATALOGUES RECEIVED.

John Harrison, North of England Rose Nurseries, Darlington.—*Catalogue of Select Roses.*

Messrs. Toole & Co., 22, D'Olier Street, Dublin, and The Nurseries, Cullenswood, Ranelagh.—*Catalogue of Forest and Ornamental Trees, Evergreens, Roses, &c.*

Francis & Arthur Dickson & Sons, 106, Eastgate Street, and the "Upton" Nurseries, Chester.—*Catalogue of Roses and Decorative Plants.*

## TO CORRESPONDENTS.

Books (*A Subscriber*).—Your query is very vague. "The Botanical Magazine," published monthly, has coloured engravings of flowers, &c. (X. O.).—Our "Vine Manual." You can have it free by post if you enclose thirty-two postage stamps with your address.

**HORTICULTURAL CHARADES (Annie).—**We know of many superior to yours. For example: If two flowers could marry, which would they be? Jon-quill to Mari-gold. There is also the apothegm, If you desire Hearts-ease do not endeavour to marry-gold.

**Pronunciation of TROPÆOLUM (Polly).—**The accent ought to be on the diphthong.

**GRASS-GROWING (J. Greenaway).—**Our native species will grow at any temperature above the freezing point of water.

**PRIZES FOR ROSES (A Young Beginner).—**We quite agree with you that nurserymen and amateurs ought not to be compelled to exhibit in the same classes. Neither are they so compelled, for in all properly arranged classes there are open classes also—classes for nurserymen and classes for amateurs.

**NOTICE OF INTENTION TO LEAVE (Inquirer).—**A week's notice to an employer is sufficient from a weekly-paid servant.

**PRUNING AUTUMN-FRUITING RASPBERRIES (Clara).—**They do not usually bear good fruit on last year's canes, or if they do it is in July like our summer-fruited sorts, and the yield in autumn is but small. It is good practice, as advised by Mr. Rivers, to cut down all the canes close to the ground in February, and in May pull up all but three or four of the strongest, leaving them about 1 foot apart. Except in the south, and warm sheltered situations in the midland and northern counties, they do not always ripen their fruit well in autumn.

**COALS (J. H.).—**We cannot give the analysis of the different varieties. "Cannel" and "Scotch Cannel" are not the same. Cannel coal will not heat water so rapidly as caking coal. If you have any kind of coal near you we advise you to use it; the cost of carriage from a distance would exceed any superiority in a coal's heating power.

**ROSE-GROWING (Monte Christo).—**We cannot tell the best locality near London. Anywhere if the soil is a rich loam and the subsoil not chalk.

**AN OVAL BED.—**A ready way of forming a bed of this agreeable shape is to place two pegs in the ground at any given distance apart (say for example 8 feet), and then take a piece of twine 7 feet long and join the ends; place this hoop of string over the pegs, and then with a nail or stick, as though you were describing a circle, keep the twine extended round both pegs, and your oval is complete. The size or the shape of the oval can be regulated by moving the pegs closer to or farther from each other.—B. H.

**TEMPERATURE OF CONSERVATORY AND DRAWING-ROOM (J. R. W.).—**"A lady wishes the conservatory to be kept as warm as her drawing-room; the gardener states that that would be injurious to the plants." We know one lady who will not tolerate a temperature below 60° in her drawing-room, and another who cannot endure it to exceed 50°. Suppose we take the mean of these figures—55°, which is alike healthy and comfortable; then we say, provided there are no permanent plants in the structure such as Camellias planted out, that there are a sufficient number of decorative plants which would not only endure that temperature but which would enjoy it. If it is too cold to be comfortable for a lady we advise that it be made warmer, and that a class of plants be employed which will be suitable to the temperature required. We put it at 55°. Now, that is a temperature which will admit of being placed in the conservatory many attractive plants. Poinsettias, Gesneras, many Orchids, Epiphyllums, Eucharisas, Begonias, with such ornamental-foliaged plants as Palms, Colusenas, even Dracenas, and most of the choice Ferns may all be placed in structure, having for its minimum the temperature above named. Furthermore, the same temperature will be endurable by Cyclamens, Mignonettes, Primulas, and Cinerarias, only they would not last so long in beauty as in a cooler house, and larger stocks would require to be grown. The same remark applies to Roses, Azaleas, Deutzias, Spiræas, and almost all winter and spring-flowering plants, and we are not certain that it would really injure Camellias in pots, but if planted-out we should consider it too exciting, and if a house had been kept cold and was suddenly raised 10° or 15° there would be danger of the buds dropping.

**VINES FOR GLAZED VERANDA (W. C. F.).—**There is no saying how many Vines you will have accommodation for, as you say the house is 40 to 50 feet long. We will take it at the latter, which will give you room for Vine rods at 4 feet distances, and we should train each Vine with two rods, planting from each end 4 feet, and the Vines afterwards 8 feet apart. We should cut each Vine back to a foot of its base, and when the eyes break select two shoots of equal strength, and train to the right and left respectively for 3 feet, and then upright, and up to the top of the roof. You will require six Vines, and these may be two Black Hamburgh, one Trentham Black, one Duke of Buccleugh, one Foster's Seedling, and one Buckland Sweetwater. Plant in spring, when the Vines are beginning to grow.

**TRANSPLANTING MANETTI STOCKS—BRIARS AND ROSES (St. Edmund).—**Transplant now or early in December, and plant firmly. The Briar stocks require no preparation, only to be cut with about 4 to 6 inches of root stem, and planted at once in good rich rather strong soil. Now is a preferable time to plant Roses than spring. The buds recently started into growth will, should we have severe weather, from their unripe growth be liable to suffer, but you may protect them by a little dry hay wrapped lightly around them, removing in mild weather.

**RAISING BRIAR STOCKS FROM SEED (R. B.).—**Sow the seed now, or you may keep the heaps in sand until spring, and now, or then, dividing the heaps into as many parts as there are divisions sow in drills about an inch deep and 6 inches apart, and cover with fine soil. The seeds should be sown about an inch apart. Some of the plants will come up the first year, but a majority not until the second, taking-up the growth of each year in autumn after the leaves have fallen, planting 6 inches apart in rows 2 feet apart, and the following season many if not all will be fit for budding as dwarfs.

**TREES IN ORCHARD HOUSE (Inquirer).—**We should prune the trees as soon as the leaves have fallen, and as the trees are planted out remove the surface soil without disturbing the roots, giving a top-dressing 2 or 3 inches thick of equal parts of turfy loam and rotten dung, making it firm. Remove the Vines if they are likely to shade the trees. "Hints on Orchard Houses" may be useful to you. It may be had free by post from our office for 2s. 7½d.

**PEAR AND APPLE TREES UNFRUITFUL (Idem).—**The soil is evidently poor. Burning the clay and mixing it with the soil with a liberal dressing of manure would improve it. Mulching around the trees as far as the roots extend with short half-rotten manure would attract the roots to the surface, and the trees would be more healthful and fruitful.

**ERRATUM.—**In the article on Clapp's Favourite Pear, on p. 397, second paragraph, for "last year" read "last used," my object being to show the continuance in season of the kinds named, and not the ripening of last year.—G. A.

**KEEPING FRUIT (Mechanic).—**It may be true that the old gardeners took prizes for two years and for three years with the same Apples, their mode of preserving them being among dried and in air-tight jars covered with bladder, but the judges could not have tasted the fruits.

**DWARF ROSES IN GREENHOUSE (A Sub.).—**We should not advise you to plant so close as you intended; 18 inches is much too near for Rose trees. In a border 32 feet long and 10½ wide we should not recommend more than ten, or at the outside twelve, in the length, and three, or if both sides are quite free, possibly four rows in width, but 8 feet is generally better than 2½ feet. We should recommend all on Manetti, planting twelve sorts, two and two, in the two back rows, and twelve kinds of Teas in the front row. This would give thirty-six trees—i.e., three rows of twelve each, planted first Teas 2 feet from edge of border, then two rows of Hybrid Perpetuals, the last being 2½ from the vinery. Varieties—Hybrid Perpetuals: Charles Lefebvre, John Hopper, Alfred Colomb, Marie Baumann, Marquise de Castellane, Marguerite de St. Amand, Princess Mary of Cambridge, Victor Verdier, Countess of Oxford, La France, Baroness Rothschild, Boule de Neige, to which you may add Dupuy-Jamain, Emilie Hansburg, Mdlle. Eugénie Verdier, Dr. Andry. Teas: Madame Willermos, Souvenir d'un Ami, Adam; Gloire de Dijon, La Belle Lyonnaise, Céline Forestier (Noisettes)—these three are strong growers; Catherine Mermet, Madame de Vitry, Cheshunt Hybrid, Souvenir d'Elise, Madame Bravy, Marie Slaley, and for a wall Maréchal Niel.

**DEFECT IN HEATING (L. F. G.).—**We fail to detect any defect in the arrangement of the flow and return pipes, and as you complain of an insufficiency of heat we conclude you have too little piping, necessitating the driving of the fire, and causing much of the heat to pass away by the chimney. Not knowing the size of the houses and the quantity of piping we are unable to arrive at an opinion.

**WINTERING FUCHSIAS (L. H.).—**They will not pass the winter safely in a cold frame unless covered with straw or other protective material, so as to exclude frost. They require to be kept dry, but not so as to cause the wood to shrivel, and if in a temperature of from 40° to 85° all the better; they will endure 45° without being unduly excited into growth.

**HIPPASTRUM RETICULATA STRIATIPOLIA TRIBUTUM (G. Diss).—**The offset sent us is of the above, and is very pretty were it only from the clear white band in the centre of each leaf, but it has in addition rose-coloured flowers with white network, which are produced in early summer. The plant ought now to be kept on a shelf near the glass, and without water or only so much as to keep the leaves from flagging, and this should be continued until it again commences to grow, when water should be given more freely, and copiously when in free growth both at the roots and overhead, continuing it until the growth is complete, and then reduce it, placing the plant in a light position, giving water only to keep from flagging, but not drying-off. Potting is best done when the plant is in free growth, and keeping under rather than overpotting, being careful not to injure the roots. It is a stove plant.

**REPORTING AZALEAS AND RHODODENDRONS (A Subscriber).—**The plants being intended for forcing ought not to be repotted until they have flowered. The most likely cause of the leaves falling is want of water, the check having been given some time ago, rather than a few degrees of frost, though that would be sufficient to induce their falling. Hydrangeas, Myrtles, and Oytiums may, if kept dry and the pots protected from frost so that the roots are not affected by it, be wintered in a greenhouse without fire heat, but they are better kept in a house from which frost is excluded, for in very severe weather the plants often suffer and are sometimes killed.

**POINSETTIAS LOSING THEIR LEAVES (A Constant Reader).—**The plants being allowed to become very dry at the beginning of September, and also being old, we are not surprised at their losing the old leaves, which old plants usually do. They do not at any time require heavy watering, only to be kept regularly moist, with a moderately moist well-ventilated atmosphere. The temperature (50°–70°), is rather high, 5° less would be better. The loss of roots we should attribute to the keeping of the plants dry and the subsequent moisture. All peat soil is not good. Good fibrous loam three parts, one part old cow dung, and a part leaf soil or sandy peat, and a sixth of silver sand is a preferable compost.

**TRAINING WALL PEAR TREES (Kitty).—**Nothing is more easy than to train wall trees on what is termed by gardeners the horizontal system, but the foundation must be laid when the trees are young. To make a handsome specimen of your tree it ought to be cut down to within 18 inches of the ground, and the two side branches should be cut back to the bifurcation. If you do not like to cut it down, then the branches marked a and b must be raised higher, allowing about 9 inches between the lowest pair and those above. c must be brought down to c, and be cut back to 6 inches. f and d must also be brought opposite each other, and the leading growth to be cut back to 9 inches. As soon as one pair of branches is formed the leader must either be cut or stopped at 9 inches above them, so that another pair may be formed, and this is carried on until the wall is covered; if any side branches (as some have done on your tree), should grow too strong for the others they must be stopped.

**APRIS ON FRUIT TREES (L. I. K.).—**The trees being unnailed from the wall, leafless and pruned, dress the trees with a composition formed of 8 ora. of soft soap thoroughly dissolved in a gallon of tobacco juice, and with this thoroughly apply to every part with a brush, reaching wall into every crack, angle, and crevice, taking care not to dislocate the buds. In case you allude to "fungus" the trees may be infected with mildew, in which case add to the above-named compound of soft soap and tobacco juice, sulphur and soot in equal proportions, so as to form a composition of the consistency of paint, and apply with a brush. We know of no "new remedy" for the Powdery disease to be applied at the time of planting, and have no faith in such nostrums. The long Pear is Van Mons Leon Leclerc; the round green one Susette de D'Avay. The two long green Pears we not know.

**INSECTS ON GERANIUMS (E. M. P.).—**We do not think you have red spider at all. If you have it upon such plants as Geraniums in a greenhouse it will soon disappear with syringing every morning with water only. It is more likely to be thrips, and those you may destroy by fumigation with tobacco, selecting a calm evening for the operation, having the foliage of the plants dry, and with the house shut-up close, filling it with tobacco smoke so that a plant cannot be seen from the outside through the glass. Do not remove the plants and burn sulphur in the house, but send us a leaf or two infested with the insects, and we may probably tell you what they are and what remedy to apply.

**PINE PLANTS INFESTED WITH WHITE SCALE (A Constant Reader).—**Take of tobacco juice a gallon, and in this dissolve 1 lb. of soft soap and 1 lb. of gum arabic, adding when thoroughly dissolved a wineglassful of



sprits of turpentine, and apply the mixture with a brush to the leaves and every part infested, having the liquid well stirred and mixed, and applied at a temperature of 130° to 180°, and this will remove or smother the scale, and after twelve hours the plants should be thoroughly syringed with clean water also at a temperature of 130° to 180°. If the scale infests the base of the leaves it is best to place the plants infested in a frame over a bed of hot dung, the frame being full of vapour from the hot dung, and the heat not exceeding 100°; and the plants placed therein for twelve hours and matted over, and upon their removal from the frame syringed with a solution of soft soap 4 cwt. to a gallon of water, applied at a temperature of 130°, the plants will in all probability be cleared of the pest, or it may be necessary to repeat the treatment. Any bed of hot dung in readiness for Cucumbers, &c., before the soil is put on the bed, the bed being made up of sweetened dung, will answer, and as yews are suckers it may be the readiest mode for you to adopt.

**TEMPERATURE FOR PLANTS IN WINTER (Donna Serafina).**—You ask us to give the culture of no less than seven species of as many genera. Our reply must be brief. *Bromelia carolina* is to be kept dry, but not so dry as to cause the leaves to become limp; *Dioscorea Walpoleana* requires to be kept moist, and to have gentle sprinklings overhead twice daily; *Eucharis amazonica* to be kept dry, the leaves not, however, allowed to flag, and in January potted and encouraged with a brisk heat and moist atmosphere; *Alocasia metallica* to have the treatment of *Dioscorea Walpoleana*; *Sinclairia nobilis* to have water to maintain the foliage fresh; *Ixora coccinea* to have water to keep the foliage from becoming limp; and *Allamanda* to be kept dry, but the wood not allowed to shrivel. A temperature of 65° to 60° by night with a decline in very severe weather to 55° in the morning, 65° to 70° by day from fire heat, and 75° to 80° or more with sun and air. The Gesnera is probably *Dioscorea*, and the leaf may be an *Eranthemum*, but from a leaf and that one discoloured it is not easy to determine the name.

**COMPOST FOR MELONS (G. G.).**—The top 8 inches of a pasture taken off with its turf and laid-up in a ridge-like heap, with a layer between each layer of turf of fresh cow dung an inch thick, and this allowed to lie six months, and then chopped-up and thoroughly mixed, is the soil from whence the turf is taken being a strong or clayey loam, the best possible compost for Melons, it being put in firmly a foot deep.

**AQUATICS IN VIKERY (T. B.).**—Aquatics require light not shaded positions, and will not do well if the roof be closely covered with the foliage of the Vines, but if only moderately shaded they may be fairly successful with *Aponogon distachyon*, *Dicella bicolor*, *Houttuia cordata*, *Limnorchis Plumieri*, *Nymphaea thermalis* (Lotus), and *N. odorata*.

**POTTING AND PRUNING ROSES (T. B.).**—Report them at once, removing all the soil that can be done without injury to the roots, giving a moderate shift, employing a compost of three parts well-reduced turfy loam with a fourth part of old cow dung or well-rotted manure. Teas require rather lighter soil than *Perpetuals*, affording good drainage. After potting place the plants in a cold pit or other position where they can be protected in severe weather, the pots plunged in ashes to the rim, and prune the plants when they are taken into the house, which if a greenhouse for Roses in April and May will be the early part of January. The Teas require very moderate pruning, and the *Perpetuals* rather close pruning.

**UNBINDING ROSE BUDS (E. S.).**—The ligatures ought to have been slackened in about a month after putting-in the buds; unfasten them now, and let them remain loosely bound over the winter, removing the ties when the buds are growing. There is nothing to hinder your having standards or half-standards, but on the seedling as well as *Briar* from cuttings dwarfs are preferable. The Apple is not known to us by the name you received it.

**ORCHIDS IN CUCUMBER HOUSE (Richard Perrey).**—The house will be suitable in winter for some of the warmer-temperature-requiring kinds, but as you have no heat after April except a warm greenhouse we do not consider you would succeed with them at that season, they requiring more heat and moisture during the summer than winter months. We should not advise your attempting their culture unless you can give them more heat in summer than a warm greenhouse. Our "Orchid Manual" would suit you. It may be had free by post from our office for thirty-two penny postage stamps.

**RHUBARB FORCING (Mary, Dublin).**—To plant Rhubarb in a grassy run for fowls, and cover with earthenware pots, surrounding them with hot dung at 2s. 6d. a barrowload, is a most extravagant way of forcing Rhubarb. You may plant Rhubarb roots in the grass run, manuring the soil liberally, and planting so that the crowns are slightly raised above the surrounding level, covering them 2 or 3 inches deep with rich light soil, and over each crown you may place the pots, and cover over as well as surrounding with hot dung, which will give you stalks fit for use in about three weeks, or if surrounded and covered with litter you will have Rhubarb three weeks or so earlier than were it uncovered.

**TUBULAR BOILER (G. Y. E.).**—The boiler as shown in your sketch must be set upright, the one outlet—i.e., flow at top, and the two at the base will be return. Your object in setting horizontally is no doubt to save a deep stovehole, but that you must submit to with the present boiler. You will have more heat with the boiler set perpendicularly than horizontally, which would not work satisfactorily nor save anything in fuel. We are unable to see that you will have more heat in the propagating houses than in the other two compartments, which in addition to the pipes for bottom heat should have twice the quantity for top heat as the other, which may be effected by a branch pipe on both the flow and return as the pipes pass through the propagating house, they being double in it but single in the other two, as shown in your sketch, which will be sufficient for Roses and greenhouse plants. We should, however, have a flow and return into the propagating house in addition to those shown, and these represented by you we should have a valve upon in the propagating house, so that the heat can be shut off from the Rose and plant house at will, with a flow and return always on for the propagating house. The conservatory should have three rows of 4-inch pipes the length of the house, and they ought to be in front, or if you have them in the path in a fine covered with iron grating four rows will be necessary. In the pathway would appear the best arrangement for the pipes as you have borders with plants in them. You will need valves upon the flow and return pipes of the conservatory, and where the pipes branch from the boiler for it. The nearer to it the better, so that you may not have any waste of heat in uselessly heated piping.

**HYBRIDISING (A Pomologist).**—There are full details in the second volume of McIntosh's "Book of the Garden."

**ERRATUM.**—The collection of vegetables for which Messrs. Carter & Co. were awarded a silver medal at South Kensington last week, was described as containing "eight" sorts of Potatoes, it should have been eighty varieties.

**BULBS IN WINDOW BOXES (Novice).**—You may place the pots in the window boxes, the pots being plunged over the rims in the soil or in coco-nut refuse, and they will survive the winter; but they would be better plunged in ashes in a sheltered spot until February, and then placed in the boxes. The Crocuses planted now will flower in March, the Hyacinths in April, and Tulips in May.

**GRAFTING PEARS ON QUINCE STOCKS (C. P. Q.).**—The most eligible mode is tongue or whip grafting. The scions of Pear, Plum, and Cherry should be taken off in January, and their lower ends be placed in moist soil. The stock should also be headed back then to nearly where it is to be grafted, leaving however a little of the stocks to be cut off at the time of grafting. The grafting should be done in March or when the stocks are starting into growth. In taking the scions of Plum and Cherry make sure that they have wood buds, otherwise they will not grow.

**STRIKING WITH SOFT SOAP SOLUTIONS (J. H. D.).**—The soft soap solution coming in contact with the soil and absorbed, will not, except in excessive quantity, injure the roots of the plants growing in it. It would be better kept from the soil of pot plants, which may be effected by laying the plants on their sides, and turning round so as to wet every part with the soap solution, washing the pots afterwards, as the soapy water adheres to them and has a very unsightly appearance.

**NAMES OF FRUITS (Englemer).**—2, *Bourré Clairgean*; 3, *Van Mons Léon Leclerc*; 4, *Vicar of Winkfield*; 5, *Huysh's Prince of Wales*; 6, *Ne Plus Meuris*; 9, *Eyewood*. (*Connaught Subscriber*).—Apples: 1, *Scarlet Pearmain*; 2, *Striped Beaufort*; 8, not known. *Pears*: 1, not known; 2, *Easter Bourré*; 3, *Bourré Bosc*. (*A Constant Reader*).—3, *Doyenné Boussoch*; 6, *Bourré d'Anjou*; 12, *Soldat Esperen*. (*E. H. R.*).—The large yellow one is *Bourré Dial*, and the small one *Gansel's Bergamot*. (*J. M. J. D.*).—*Pears*: 1, *Nouveau Potteau*; 2, *Zéphirin Grégoire*; 3, *Brown Bourré*. *Apples*: 4, *Tower of Glamis*; 6, *Boston Basset*. (*Henry Turnbull*).—1, *Forale*; 2, *rotten*; 3, *Marchal de Cour*. (*W. G.*).—No. 1 is a good Apple, but has nothing remarkable in its flavour; 2, *Mère de Ménage*; 3, *Emperor Alexander*. (*C. Z.*).—No. 2, *Bourré Sterckmans*; 6, *Bourré d'Arnhemberg*; 8, *Vicar of Winkfield*; 15, *Colmar d'Arnhemberg*; 14, *Bergamotte Esperen*; 12, *Doyenné Goubault*. (*C. Turner*).—*Herefordshire Pearmain*. (*Davie Drake*).—1 and 2, not known. 3, *Court of Wink*. (*J. Kelway*).—A showy Apple of no special merit; probably a seedling from a *Sider Apple*. (*T. Holman*).—*Nouveau Potteau*.

**NAMES OF PLANTS (W. T. C.).**—1, *Nephrodium (Lastrea) dilatatum*; 2, *Aspidium angulare*; 3, *Cystopteris fragilis*; 4, *Aspidium aculeatum*; 5, *Adiantum hispidulum*; 6, *Adiantum Capillus-Veneris*. (*H. Grayson*).—*Davallia canariensis* and *Polypodium Billardieri*. (*J. L. C.*).—*Felisia falcata*; 2, *Felisia rotundifolia*. (*Somerset*).—1, *Polypodium Dryopteris*. 2, *Aspidium angulare*. The other three seem all forms of *Adiantum canescens*. (*E. V. K.*).—It appears to be a species of *Kalanchoe*. (*M. A.*).—1, *Saponaria officinalis*; 2, *Tradescantia virginica*. It is difficult to determine species of *Aster* except from very good specimens; 4 is probably *A. Novae-Angliae*. (*G. M.*).—*Escalonia rubra*.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### CRYSTAL PALACE POULTRY SHOW.

THE grand national poultry Show for another year has come and gone, and this evening the Crystal Palace Meeting of 1875 will be a thing of the past. Everyone looks forward to this gathering, and while the *menu* presented continues so choice, and the servers themselves so courteous, nothing else will be able to get into the running as a national show. It is true this year the numbers of entries are less, but that is nothing, for all the while we find four thousand pens we shall be satisfied that this Society is doing good work and producing good fruits. To account for the lesser number of entries this time we have the unsuccessful months of the early year, when in many places the chickens refused to leave the eggs; and then we have the Alexandra Meeting, which for the first time held its levée this season, and doubtless birds which were found to be quite out of it there were not entered here. As we should imagine, some did not post their entries until the state of the Alexandra poll was declared. Lots of good birds make their *début* here. One or two of our greatest breeders have not exhibited before this season, waiting for this meeting; and we are not disappointed with the results, for we have friends among the little birds, and they come to us with tiny whispers of what Mr. A. has, or how Mr. B.'s birds are moulting, or that Mr. C. has some young wonder in store for the tournament. We may say of the poultry world very truly, that

"Moving through a mirror clear,  
That hangs before her all the year,  
Shadows of the world appear."

for it is wonderful to notice how much truth there is in these shadows that from time to time flit across our paths from the large establishments. Of course, lots of recent decisions are turned upside down here. The winning heroes and heroines of former shows have here to put up with those horrible "highly commended," horrible because telling of defeat and showing no returns of any sort for money spent in entry fees and carriage; but then

"Let Fate do her worst; there are relics of joy,  
Bright gleams of the past, which she cannot destroy."

This certainly is cheering, and the memory of bygone triumphs with now defeated birds makes a fine spot for some and an endless fund of grumbling for others. About the judging, we take the Judges' parts and always have done, for we know how easy it is to go round catalogue in hand and with the aid of

friends and exhibitors criticise the awards made by gentlemen who have been turned adrift into a show to judge in a certain time a certain number of birds without help of any sort or kind, often an attendant not being at hand even to hold a refractory specimen. Thinking thus, we wonder the awards here are ever made in these gigantic classes with the precision and accuracy they are, and this year we find about the usual state of things—some mistakes, and some wonderful awards, where previously unknown birds have been at once spotted in classes of many entries and containing birds of much note. Taking them on the whole, then, the awards are satisfactory, the arrangements are capital, the feeding good, the attendants courteous, the entries large, and the quality wonderful. So much then for prologue, now for criticisms.

**DORKINGS.**—Dorkings, as of old, head the list, and would a few years ago have been considered a show in themselves. We have certainly seen a greater number of excellent birds in the Coloured classes at some of the Birmingham shows, but the most captious critic could find but two or three faulty specimens in the prize list, and the Silver-Grey—and even more so the White classes—are of rare excellence. The season has evidently been a bad one for moulting, and consequently the classes for adults are in condition far behind those for young birds.

**Class 1.—Coloured cocks** head the list. We confess that we think the first-prize bird here overrated. He is a very large dark bird, but ungainly and shaky on his legs, and his comb is not in good order. Second is a smaller bird, but a thorough Dorking in shape, deep-breasted and black-tailed. Third is a grand bird, good in shape and feet, and in vigorous condition. We should certainly have been inclined to put him first.

**Class 2 for Coloured hens** contains twenty-one entries against nine cocks. The cup for the best adult bird went to this class. The winner is perfection in colour and in the pink of condition, though hardly up to the size of cup hens, and in this respect inferior to the second and third prize birds; still we think her well placed. Second is a very large bird, but not in such bright condition. Third very equal with the second, but a little scaly on the feet. Fourth a nice bird, and well placed. Mr. Bartrum's highly commended hen—a veteran winner, we think—is a fine bird. Many birds in this class are not well through the moult.

**Class 3, Cockerels.**—This we consider decidedly a good class, the winners being fairly ahead of the other competitors. First-and-cup is a darker bird than we like, with much bronzing on the wing coverts; but Coloured Dorkings must not be judged as birds of feather. He is good in shape and massive in limb. Second we thought, all round, the finest bird in the class, but probably his silvery colour prevented his being first. Third, Mr. Burnell's again, somewhat smaller than No. 2, but darker and very short on the leg. Fourth, a now-celebrated bird shown by Mr. Hans Hamilton, the cup-winner at the Alexandra Palace. We think he has seen his best days for this year, and looks jaded. It is no small honour to Mr. Burnell to have bred this bird as well as the second and third prize birds. Fifth, a bird in nice condition but in no way remarkable. Among the highly commended the best struck us as being Lord Turnour's Oxford winner, a good bird save in claws; a fine cockerel of Lady Dartmouth's, apparently thrown out by a swelled toe; a massive bird of Mr. Clarke's, and a Rose-comb (Badger), which if not overshadowed may make a fine cock.

**Class 4, Pullets,** did not strike us as being so good as the cockerels. Their colour has certainly been brought to great perfection, but we fear at the expense of form. First is a big bird, but not so good in colour as the second and third, and with remarkably white earlobes. Second is somewhat her inferior in size, but a beautifully coloured bird and in perfect condition. Third nearly a match to the second, rather less in bone. Fourth is not a large bird but good all round, we suppose her shape brought her into the prize list. Fifth-prize bird is small compared with her predecessors, with an old-fashioned dark red breast, which we like. Some of the highly commended birds are good. Mr. Parlett's (the Alexandra Palace winner), will make a grand hen. 107 (Bigg), is a good bird but inclined to dark feet. 70 (Lord Turnour), should, we think, have had a place in the prize list.

**Silver-Greys.**—Here we see a great advance on former years, very few cocks being shown with grizzly breasts, and hardly a hen with red in the wings. The cup for the best adult went to a cock. This award is, we unhesitatingly say, one of the most unfortunate we ever saw. The bird is indeed a large one, but his saddle and hackles are very yellow, his breast is splashed, his thighs are pure white, and his shrivelled comb hangs on one side. Second is barely through the moult, but a large and very faultless bird, and infinitely superior to the cup bird; as is also the third, not a large bird, but excellent in colour.

**Hens** are a nice class. First is a fine old hen of the darker shade of silver with good robin breast. We should have given her the cup. Second is a much lighter-coloured bird of good square shape. Third a very long and large hen; if we mistake not a winner in former years.

**Cockerels.**—First is a remarkable bird. We should have given him the cup. Second a nice cockerel. A less honest exhibitor than Miss Paaley would have pulled out some feathers on his legs. Third a small bird, but very silvery and well-coloured on breast. Commendations were sparingly given in this class, and many nice birds were unnoticed.

**Pullets.**—The cup went to a pale-coloured bird with a good robin breast. This is a rare combination, and we think meritorious. Second is a bird of the same type, as good in frame, but not so sound in breast colour. Third a fair pullet. The class as a whole we did not think so good as the cockerel class.

**Cuckoos** we consider a failure. The first cock had a bad comb and a nearly white tail, otherwise his markings are good. The second we thought a better bird. The third decidedly larger, but with badly-marked wings. The winning hens are all very dark; the first of medium size, the second and third very small.

**Whites** are good classes, numbering twenty cocks and fifteen hens. This shows the policy of dividing the classes, which we believe was conceded on Mr. Burnell's liberal gift of a cup conditionally. First is a fine cock, large and square, and in splendid condition. Second a pretty white cockerel, not large—the Oxford cup bird, we think. Third a very young and massive cockerel, promising to be a grand cock. We liked Mrs. Hayne's commended cockerel and an unnoticed one of Mr. Stratford's.

**Hens.**—Here Mr. Cresswell is again first with a lovely hen, which also carries off the cup. She is long-bodied, of pure colour, and faultless in comb and feet. Second is a pretty bird from the same yard in excellent condition. Third is a good short-legged hen. 212 (Mrs. Hayne) is a sprightly bird, but thrown out by crooked claws.

**Class 13 (Selling),** contains some valuable birds and bargains, but as usual in these classes the unions of cock and hen are somewhat ill-assorted birds. The first pen contains a grand dark cock with a poor, badly-coloured, little hen. Second and third are nice cockerels belonging to the same exhibitor, mated with very dark pullets hardly their equals. There are cocks in the class which would have probably won in the open classes.

**COCHINS.**—The Cochins are very good, but taking them as a lot we do not think them quite so good as last year. Perhaps the best class of Cochins is that for White hens, which is certainly wonderfully good; many of the other classes contain several fine birds, but no one class contains the number of splendid specimens as does that for White hens. Cochins prices seem as good as ever, and we hear of specimens realising extraordinary sums. Some go so far as to say Cochins have been the *pièce de résistance* of the season, and have come to the front in quality better than any other breed. We hardly think this, though acknowledging the merits of many of the Cochins birds, for we feel the Houdans have done wonders in 1875 in marching along the road that leads to complete and final success. But for the Cochins. **Buff** cocks come first on the list with half a score of entries. The winner is the champion cock of last year, and well, too, he looks on this occasion. He has come out a good colour, and looks as broad and massive as ever; still there is something about him which does not make him so startling to look upon as he was in 1874. Nevertheless, he should have had, we think, the cup for old Buffs before the Buff hen, even if he was not near the £21 piece of plate, which we know some think ought to have been his. The other birds in this class were good and well placed. We liked the third-prize bird very much; he looks as if he would make a grand stock bird. Mr. Darby's pen was empty. In old Buff hens we did not care for some of the awards; the third-prize hen was poor in every way, and we preferred many pens to her. The best hen in the class was, perhaps, Mr. Darby's unnoticed bird, but she had a cold in her eye, which we conclude threw her out; but even putting first and second as they were, one of the pens 253 (Lingwood), 254 (Hendrie), or 258 (Gwydyr), should have come in third before the hen with that honour. **Buff** cockerels were a nice lot. The winner was indeed a winner; he won first prize, his section cup, and the £31 cup for best pen in the Show; but whether he should have had the latter honour is a matter of great doubt. He is a nice showy bird, a little loose in one wing, but good in head and other points. Second a nice square bird of good sound colour. Third a large cockerel of fine shape and possessing many good points. Fourth another nice cockerel of fine colour with a pretty head. Mr. Lingwood's highly-commended pen was very good, and so was Mr. Taylor's. **Pullets** were a very choice lot, and the awards about correct. The first is very even in colour and good in shape, but a shade small; the second very beautiful in colour and grand in all points; and the third a smart pullet of great promise, and looks admirably in her pen. Fourth a large bird of nice shape, but not over-good in colour. 310 (Proctor) a very large but rather mottled pullet.

**Partridge** cocks were a fine lot. The winner was large and square; he has lost a serration of his comb, which makes him look rough about the head; he has a nice breast and thighs, and very golden hackles. For second place we should have gone to Lady Gwydyr's highly-commended bird; he is very rich in colour

and grand in shape, and when well through will scarcely be excelled; the second and third were, however, fine birds, and possessing much quality. Mr. Tudman's other pen (815) was a fine cock of good colour and square shape. The Partridge hens were very fine, and many of them wonderfully fluffed and pencilled. The winners were all good, and so were the highly-commended pens of Messrs. Jones and Percivall. Partridge cockerels were a fine collection. The winner large in body, strong in limb, and good in colour and head, and we thought well to the front. Second a very nice bird, well grown and well shown. Third another good cockerel of rich colour. We liked Mr. Shrimpton's pen 855 very much, for the cockerel, though now rather brown in fluff, promises to make a grand bird and to have a good head. Partridge pullets were excellent; we were delighted to see such splendid pencilling. The winner was small, but a gem for markings. The second was larger, and not much behind the winner in pencillings. Third a nice bird, also beautifully pencilled. All the noticed birds were good, and we thought this a very good class.

*Whites* made a grand display, no less than sixty-three entries being made. There were, however, many empty pens; among them in old cocks we noticed Messrs. Darby's, Whitworth's, and Woodgate's pens had no tenants. We liked the winner very much; he is very fine in colour, but then the whole class was remarkable for this. The second was slow on the legs and rather small, or else of superb colour. The third we liked immensely; he is grand in shape, legs, and head. Capt. Talbot sent five birds; of them pen 390 was evidently very ill, but his other four were all good and splendid in colour, but they all want more time to come out well, which they will doubtless do. White hens were superb, and we thought the winners well placed. The first was a picture in every way, and of exquisite colour. Second not so good in colour or comb, but large and well-shaped. Third very good, but closely pressed by one or two of the highly-commended pens. Every pen noticed was good, and we longed for prize cards to put on Messrs. Proctor, Whitworth, and Tindal's pens. White cockerels were not a very grand lot save the winners. Out of the dozen pens entered one third never came to the post, for the pens of Messrs. Shrimpton, Woodgate, and Talbot (3) were empty. We should say the second-prize bird closely pressed on the winner, for he is larger and better in head, though as yet not quite so massive. The third was good but badly shown, and Mr. Boissier's pen 428, though large, was much too coarse in every way, and looked dirty and out of condition. White pullets were good, and here quite a little scene took place. It appears that grave doubts arose in the minds of some of the Judges as to whether Mr. Acton Tindal's bird in pen 487 was a legitimate 1875 chicken or not, for it had its fluff and matured features so largely and strongly developed. Whether it is an 1875 pullet or no we will not pretend to say; but this we do feel, that the Judge jumped out of the frying-pan into the fire, for though Mrs. Tindal's bird was left out in the cold, the first prize was given to a bird which we venture to think is even older-looking in head, legs, and general appearances. The second pullet is very young, and should not have been in the list, we think, at all. We much preferred Mrs. Tindal's third-prize pullet, or that of Mr. Bloodworth, which was second at the Alexandra meeting, to say nothing of Capt. Talbot's very white and pretty bird.

*Black Cochins* were small classes, and only the cockerels really good. The old birds want more time, though Lady Gwydyr's pair were very good all round, and so were the second. In cockerels Mr. Darby walked his two birds in, one of them taking the cup; he is very grand in colour and shape, and beautifully feathered. Third also good but poor in comb. The pullets were an easy lot to judge, and no mistakes could well be made. The winner was rather hooked, but of good colour and shape. Second and third quite young and not yet developed; all the noticed birds were ditto—in fact, except for the cockerels, we do not think these Black Cochin classes so good as last year on the whole.

The awards in the Cochin sale classes we did not know; we waited till the bell rang to clear the Palace, but could gain no tidings, and had to leave without them. We were sorry for two reasons—for ourselves, because we knew we had the Cochin MS. to get in hand on Monday evening, and for the Society because it is often a check to sales when the cards cannot be upon the cheap pens on the first day. We noticed, however, that the cards were put up in a very slow way, and we never left the Palace on the first day so much in a fog as to the awards as we did in 1875, and we are sure in this many agree with us. Of the birds in this £5 class we much liked the Buff cockerel in Mr. Burnell's pen, and the White hen in Capt. Talbot's 499. Taking the Cochins, then, collectively, we think them a wonderfully fine lot, and showing signs of progressing even now.

*Brahmas*.—The show of this breed is an immense and magnificent one, upwards of five hundred pens being exhibited, pretty evenly divided between the two varieties. The office of a reporter is no easy one with such an enormous field before him to be reviewed in a few hours, and it is necessary to set

before us some definite and intelligible plan of criticism. It is impossible to describe accurately every winning bird when in some classes ten prizes are awarded; we shall attempt for the benefit of those who have not seen the Show firstly to point out the general principle on which the Judges seem to have made their decisions, and secondly to trace general improvements or deteriorations in the varieties. On the whole we think that we see a great general advance in the Light variety. The form of most of the winning birds is excellent, and such as was seen but here and there a few years ago. The Darks have reached apparently the *ne plus ultra* in beauty of marking, but we fear with some sacrifice of comeliness in the cocks and size in the hens.

*Dark* cocks numbered thirty-two. The cup-winner is an immense bird barely through the moult, very glossy, but we do not admire the angle made by his back and tail. Second is a hooked bird with good black breast and fluff. He also is deficient, as now are so many otherwise good Brahmas, in the beauty of a back gradually rising towards the tail. Third is not so large a bird, but beautifully striped on the neck-hackle, and with a better cushion than the first and second. Fourth we consider the best bird in the class; he has hardly got his full growth of neck-hackle yet, but he is perfection in marking, and has a bold densely-black breast. Fifth is not so good in size as the other winners, and rather rusty on the wing, still he is a bird sure of honours at any ordinary show. Hens.—The cup went to a bird very evenly pencilled all over, but we must confess that we do not like her shape. When we saw her her back certainly drooped towards the tail, but it may have been the fault of her attitude at the time. Second a thoroughly good hen inclined to have hooks, as are now most of the winners, but combining great clearness and beauty of pencilling with good size. Third a smaller bird, and slightly more inclined towards a brownish tinge, but with that lovely breast-pencilling which Mr. Peake now seems to produce so clearly. Fourth a bird with the markings on her breast of a singularly bright black; a want of shapeliness behind detracts from her beauty. Fifth, again, when looked at full face is a beautiful hen, but a grizzly tinge on her wings and in her fluff must have prevented her being placed higher. Mr. Lewis Wright shows a hen remarkable for size and great regularity of pencilling. Some good judges considered her the best hen in the class, but she is a little brownish. Mr. Dorchester's commended bird struck us as being of excellent Brahma shape.

Cockerels this year have two classes, the second being for birds with mottled breasts. The natural inference is, that the first class is for Black-breasted birds, but strangely enough one prize went to a bird with much white markings on his breast. The cup bird is one of Mr. Lingwood's best type. He is perfection in leg-feathering, and has a small highly-bred head. He reminded us of the beautiful cup bird of two years ago. Second is not so large a bird, but quite as good in shape, with very dense pencilling on the neck-hackle. Third is the bird which we think should have been in the next class. He has the fault which we have observed in other birds of 'Miss Douglas Pennant's, otherwise very good—viz., a want of fulness in breast. Fourth a small bird, but of very pretty form. His tail is, perhaps, a little too Cochin-like. Fifth long-tailed and rather ungainly, but apparently timid, which prevents a bird doing himself justice. Sixth a bird which we should have put higher. He is tall and perhaps a little long in shanks, but remarkable for intensely dark under-feathering. The four other prize birds are, generally speaking, in our judgment decidedly inferior to the six foregoing ones. Seventh is spoilt by an ugly comb; eighth is a well-shaped bird but rather yellow, with white in tail and brown in wing; ninth a fair bird with poor comb; tenth somewhat narrow, or would have been higher. Mottled-breasted cockerels are, generally speaking, indifferent. This we think a satisfactory sign, showing that there is some real connection between a black breast, which has of late been thought almost a *sine quâ non*, and general good points. The first and second birds are well ahead. We could not but remark the difference between the poor leg-feathering of Mr. Lingwood's bird here and that of his magnificently-feathered cockerels in the preceding class. No. 2 runs No. 1 hard. The other three prize birds really do not deserve comment. Pullets.—This class is a very large one (ninety-seven entries). As we remarked last year, size and form in pullet-breeding seem now too much sacrificed to marking, still there are many birds in this class of grand shape, and we were glad to see them come in for their share of prizes. The cup bird reminds us much of the cup bird of last year; she is exquisitely pencilled, a little light towards the top of the breast, but rather sparsely feathered on the legs. Second a bird which we did not much admire either as to head or markings. Her ground colouring is a little brown, and the black pencillings not very defined. She has excellent foot-feathering, and is slightly hooked. Third is finely shaped, perhaps a little mixy on the wing, with distinct breast-pencilling of the rounder form. Fourth is a fine large pullet, well placed, evidently on account of her size, for her markings are a little indistinct.

Fifth a prettily pencilled bird, not unlike the first. Sixth correctly and evenly marked, but with greater breadth of black than we like in the pencilling. Seventh fair both in form and size, moderate in colour. Eighth a fine pullet. Ninth small and well pencilled. Tenth a remarkable bird, which in our judgment should have been far higher. We say this with less diffidence, because we made our note before looking at the owner's name, which would, of course, lead one to expect merit. Her pencilling, especially on back and wings, is very fine, and she is shapely too.

The Five-guinea Selling class contains, as a rule, birds far above that value, which doubtless are sent on the chance of their winning prizes or being run up at the auction. The better birds which fail so to do, and are consequently sold in the ordinary way, cause no little rivalry and excitement at the sale office. The hen in the first-prize pen struck us as remarkable for utter absence of brown in her colouring, the ground being white and the pencillings black.

*Light Brahmas*, as we have already said, are making great strides in form. Each year we see fewer of the narrow long-shanked birds which once were common. The cup cock struck us as being the most perfectly shaped *Brahma* of either variety in the Show; he is good, too, in colour, and all that could be desired in leg-feathering, his feet amply clad, and masses of quite soft feathers curling round his hocks; if only a little size could have been added he must have been very nearly the winner of the champion cup. Second a tall bird, not equal in shape to No. 1, with very dark under-feathering. Third too high in comb, but a broad bird, and he has the merit of a very good hackle falling on a beautifully white ground. Fourth a big bird not in first-rate condition, and a little yellow; his hackle is good, and his leg-feathering magnificent. Fifth is a small bird of nice form and hackle, rather like the cup bird on a reduced scale. The class is decidedly a good one. *Hens*.—The cup was given to a gigantic and grand bird, apparently not quite dry from the wash-tub; her form is such as we rarely see, her colour clear, and hackle distinct. Second a far smaller bird, very white, and with good neck-marking, but poorly feathered on the legs. Third a bird good in shape and feathering, not so clear in ground colour as the first and second, fair in size. Fourth the same type of bird as the second. Fifth a small bird, and almost white in tail, but most excellent in ground-colouring, and well hackled.

*Cockerels*.—Mr. Horsfall is to be congratulated on winning the cup for cockerels as well as for cocks. His bird in this class is not equal to his adult bird; he is well-shaped, very fairly feathered, and nicely marked, his failing being a somewhat ugly comb. The second prize must have been given for form; the winner has little neck-hackle, and is small and under-feathered, still his shape is good, and we could not see much reason for the great fault which we heard made with the award. The third award we do not like; the bird's comb flaps, and his tail is too prominent a feature; all seems to tend towards it, and so he is tilted forwards. Fourth is a nicely feathered bird, but devoid of hackle. There is a gap between him and the fifth, which is a narrow bird and flecked on the back. Sixth is a most remarkable bird, we should have placed him first or second; his special beauty is his faultlessly white colour; his size and leg-feathering are also all that can be desired. Seventh we thought a poor bird and rather yellow. Eighth is somewhat devoid of hackle. Ninth we liked better than many of the earlier winners; he is large and very fairly marked. Tenth is small, perfect symmetry being his strong point. *Pullets*.—The early winners in this class again we thought excellent in form. The cup bird, in addition to being well shaped, is beautifully white, but too light in tail to please us; a rich black is here, to our idea, a great ornament. Second is not so clear on the back, but makes up for this defect in shape. Third is a little tinged and slightly hooked, otherwise a very nice pullet, and good in build. Fourth has a correct amount of leg-feathering and nice hackle. These four birds are all broad; the fifth is not so, and is more of the old *Light Brahma* form, still she is a pullet sure to win. Sixth an excellent bird; we should have put her higher; her neck hackle is splendid and her back clear, her under-feathering dark, yet not peeping through in flecks. Seventh deficient in hackle, or would have been higher. Eighth a well-grown fairly-marked bird; we prefer her to her owner's fifth-prize winner. Ninth pretty, but too small and light in hackle. Tenth not remarkable.

*Five-guinea Selling class*.—As a rule the birds in this class seemed deficient in the distinctive dark markings of the variety, though in many cases good in size and form. The first-prize pair were well placed. The second contains a well-formed cock. The class has the large number of thirty-five entries.—W. AND OTHERS.

#### THE FRENCH CLASSES.

As I anticipated, the promise held out by the Alexandria Show was fully borne out by the grand Exhibition at the "old shop;" and a finer collection of birds than those brought forward in the classes in which I am especially interested (*Houdans* and *Crève-Cœur*) was never exhibited. I wish that I could add that the judging was equally as good as the birds; but I am able

to give an unprejudiced opinion, for I was neither an exhibitor nor a special friend of any exhibitor, although I know many of them; and although it is, we are told, a difficult matter to be impartial, I believe my observations will be endorsed by many exhibitors. These are points in which, of course, differences of opinion may be allowed to judges. One likes the leaf comb, and another the antlered one; one prefers dark-coloured birds, and another light, and exhibitors will not complain, I believe, if a judge gives his preference to either one or other of these types of birds; but the veriest tyro in *Houdans* knows that red hackles are a disqualification, that an outside spur is a blemish, yet in the cockerel class a bird with one of these defects and with a wry tail takes first prize, while one full of red hackles in his neck and tail takes a third. With regard to the latter I can safely say that, as an old *Houdan*-breeder, had he been in my yard I should long ago have had him to table. Again, what are we to say when hens and cocks are exhibited as cockerels and pullets and gain a prize? I am not sure that this is always done with a guilty knowledge of the fact. I know one case in to-day's showing where a bird was exhibited at a provincial show as a pullet, obtained a cup, is claimed, and then exhibited as a pullet here. Of course the buyer can with justice say, "I bought it as such, and therefore I can exhibit it;" but the Judges ought to be able to distinguish in some of the cases at any rate. Where judging is so faulty as in some of the classes to-day there is no merit in winning a prize; and, as one gentleman said, if all the numbers were put into a hat and drawn there would be more satisfaction. Let it be borne in mind that it is not partiality or unfairness that is complained of, but incompetency. And now a few words on the exhibits.

In the *Houdan* cock class 1073, first prize, is a grand bird of Mr. Woods, in every respect good, although not having what some insist upon in *Houdans*, the leaf comb; still he is a magnificent fellow, and well deserves his position. 1074 is a fine bird, so is 1076 with the genuine leaf comb. 1075 has a thorough *Crève* comb, but good. 1082 light in colour, but fine. 1087 (Mr. Copplestone) second, a fine bird, but rather queer about the feet. 1088 a very large bird. 1090—why was this bird brought? and yet two years ago the owner exhibited a fine bird here which took first. 1089, too small a comb, and with a ragged crest. 1092 a very fine bird, good in colour. 1093 also a very good bird. The hens were very good. 1094 very fine old bird; has seen some seven or eight summers. 1096 good, but queer in the feet, and with an outside spur. 1098 very good, capital in colour. 1114 very fine bird, good in size and colour. 1116 good, but somewhat small. In cockerels there were some strange vicissitudes of fortune: birds that had won cups elsewhere not noticed—thus 1128, inclined to squirrel tail, won the cup at Oxford, not noticed here; 1129 which won the cup at the Alexandria also unnoticed; 1188, first prize, had, to my mind, many points against him—a wry tail, bad fifth claw, and a queerish comb; he had a magnificent crest, and was very large and good. 1153 was a flagrant case of bad judging. Pullets were good; but if the first prize, 1162, was a pullet, I have very antiquated notions of what a pullet is. 1174 very handsome, but somewhat small. 1188, third prize, pretty marked bird, but rather small.

The judging in *Crèves* was not so bad, and indeed in some of the classes no exception could be made. 1192 was a magnificent bird in splendid condition, and, if I mistake not, this is the third year running that Mr. Hibbert has carried off the first prize here with him. 1202, the second-prize bird, is a fine fellow, and if in as good condition as the previous one would have run him very hard for first. 1206, a good bird, fine shape, and good in colour. Hens were a fine class, although I think some of the awards might have been well altered. Thus, I think 1218, which took second prize, was a better bird than 1219 which had first. The crest of this latter came so much over the face as to make it especially ugly. 1211 was also a good bird, and ought, I think, to have been better placed. There were some grand birds exhibited in the cockerel class. 1243, first-prize, was well worthy of the place he took, grand in size and colour. 1249, third, was also a grand bird; I should have preferred him to second. 1241, highly commended, was a good bird also, but small. In pullets the first prize was given to a very splendid bird, 1258, of Mr. J. J. Malden's. Indeed a finer one has rarely if ever been shown; it was hatched very early in the year and has been well taken care of. 1252, second, nice bird, but large and fine. 1267 was good but rather small. 1266, a nice bird, but in bad condition.

There were other noticeable features to which I may return, but time and space limit me now.—D., Deal.

#### BANTAMS.

*GAME BANTAM* cocks are better than the hens, but a tendency to over-size exists in both. First *Black Red* hen excellent; second cock capital. Among *Brown Reds* the first cock was far ahead of the rest; the hens better than their mates. *Duck-wings* no advance. *Piles*, first-and-cup a very choice cock, and the hen, same owner, his equal. *Wheatens*.—This colour not fixed yet, some of the various shades one-half *Duckwing*. The *Blacks* well up to the mark; all prizes deserved. The *White*-

booted fair. Second-prize birds (Mr. Woodgate's) well shown. The *Sebrights*.—First and second very good; third large. There was rather a falling-off in these pretty pets.

We have spent so much time, and given so much space to the Dorkings, Cochins, Brahmas, French, Bantams and Pigeons, that we must defer the remarks on the remaining breeds till next week, when we promise them the same justice as we feel the criticised classes of this week enjoy.

#### PIGEONS.

##### HOW I EXPECTED TO SEE.

TOM HOOD the elder and wittier wrote something like this—

"No night, no day,  
No 't'other side of the way,  
No sun, no moon, no stars."

and a great many other no's, ending with No-venber; but he said nothing about no dry land. Had he lived to this November he would, though—that he would. Water everywhere: no trains from Oxford to Didcot—stopped by water; engines running through water, "hissing hot, air, hissing hot," like Falstaff when thrown from the "Merry Wives" buck-basket into the Thames at Datchet Mead. Dark, too, so dark—rain, darkness, misery. I'll go, however, through water, almost through fire, to the Crystal Palace Show. See it? that's another thing quite. I may see it, peep at the birds with gas jets in front of the pens, perhaps with itinerant link boys. Happy thought that, make a present of it to the Committee. Call on my way and get a magnifying glass—another happy thought. I will try and see the Show, for what the best run of the season is to the hunting man such is the great Crystal Palace Show to the poultry and Pigeon fancier—a thing to talk of, enjoy, and reflect on. But I do not expect to see it to advantage.

##### HOW I DID SEE.

Floods abated, rain gone, sun out, the old palace of glass shining diamond-like. Birds, my birds—that is, the Pigeons, cooing as if at home, joyful in the day's joyfulness; all is bright and pleasant. I see the Show to perfection.

I regret to have to grumble, but the good Judges are a little behind with the "cards." The rows of chairs—uncomfortable barriers—prevented one getting to the Pigeons. Noon, then one o'clock comes, then two, still the barriers. But never mind, Pigeon friends, some "fray the far north," sit with me on the chairs, and though we chafe a little, we talk and enjoy ourselves. At length, at long last, we are in; chairs moved, we scamper in. The "cards" are now only up in some classes, not all.

Now for the birds. The numbers are so great, the pressure for space is also so great, that I must speak of the birds generally rather than particularly—instead of writing a pamphlet on the Show, notice only the chief features and the special attractions.

The *Pouters*.—These just kept up their old place, but certainly there was no advance. The Blue-pieds showed the uncertainty of Pigeon-fare, for Capt. Hill's grand old bird, No. 2584, had only a "commended," and a splendid cock, 2685, was not noticed. A bird of fine colour (Fulton) won. Among the Blacks no doubt the first prize was ahead of his class. Second had a nasty blue tinge; third good. Reds and Yellows poorish in colour; though in Whites the first was long and large, yet a very fine bird. No. 2610 (Watkins), was, rather curiously, unnoticed. He has a crop indeed, and is a very fine Pouter. As to the other Pouters Mr. Fulton's first-and-cup Blue hen was a fine well-judged bird, and second (Gresham) very good. The White hen (2670) first—now Fulton's, late Heath's—was admirable. A Chequer hen I could not admire won, a beautiful graceful Dun being second. Among the *Pouter* Whites won all; the second were two cocks which should not have been. The class good—all noticed.

*Carriers*.—These birds are very fine and the classes heavy. Certainly these have gone on, Blues particularly. None were mere bits of things. The young birds promise well, and had four prizes in cock and hen Blacks.

The *Dragoons* are now wonderfully popular. Blues excellent. Reds showed a bird, first-prize cock, of wonderful colour, rich and sound. No one could pass him, and few but looked again. At a distance the bird shone up conspicuously from his brilliant plumage. The Yellows were lovely, and the perpendicular light falling on them showed off their soft sweet colour. The Whites formed a fine class. Grizzles are well enough now and then.

*Almond Tumblers*.—Here was the advance, and all praise to Mr. Bequiant for causing it. The colour is now fine, and artificial head and beak go for less. It is now the whole bird instead of one part of him. Mr. Ford's bird, first prize, is a gem, and Mr. Merok's first hen the same; both grand in ground colour and feather. Well-broken Almonds are Almonds now and no mistake. The second-prize young hen (Hallam) is a choice little bird of exquisite shape, in that and also better than the first. The excellency of the Almonds is the feature of this Show.

The Short-faced *Balds* show what one persevering man may do. That man is, of course, Mr. Woodhouse of Lynn. His first Blue is very superior, and Mrs. W.'s second Red worth a long

walk to look at. The Any other variety of Short-faces brought together some fine feathered birds, chiefly Red and Yellow *Agates*.

*Barbs*.—The old birds are short in numbers; the young birds promising, and deserved their four prizes.

*Jacobins*.—Here was another advance. The first Red (J. Thomson) had a perfect rose. The Yellow first-and-cup (Fulton) is indeed good—colour, hood, chain, carriage. The Blacks and Whites, the latter getting more numerous, are very attractive. First-and-cup a Black, grand colour; second a neat White. The present fault seems to me to be the hoods not coming forward enough. *Fantails* very fine, fourteen noticed in Whites. *Nuns* and *Trumpeters*, the last are the best.

I think all, save the very prejudiced, must have owned that English *Owls* ought to be preserved. They are noble birds, and their beauties distinct from the pretty foreigners. I was pleased to see such a large class. First and second grand. The Foreign *Owls* few, but choice; the winners all White.

The *Turbits* again good. Mr. Daw first and second in Blue *Silvers*, and he did not have more than his *due*. The cup Red (Fulton) such a solid colour, a *rara avis*, and good Yellows followed. I want to see more Blacks.

The *Maggies*.—First good Black, third a very good Red. The *Rants* in few hands, but up to the mark. The *Flying Tumbler* class showed some neat birds, and not too short-faced. The Any variety hardly equal to former years. *Mealy Frillbacks* most noticeable.

The four-pair-bird prizes must have a word. The cup went to Mr. Fulton. He showed such *Jacobins* for hood and chain, but, tell it not in Dundee, they were low-cut and clean-thighed. The row of large cages is a grand feature, and I wish I could give more printing space in praise of their contents, but it cannot be had. The Pigeon show was, save two pens, as large as last year. The poultry fell off in numbers, but not the Pigeons. —WILTSHIRE EXHIBITOR.

Mr. M. Martin was awarded an extra second prize for his excellent collection of birds in the class for four pairs collections of Pigeons, Class 193, No. 3724.

Mr. Vander Meersch was unfortunate in not having some excellent birds penned in time for judging.

Food of every kind is supplied by Mr. Pratt of Lupus Street. The Pigeon department is under the sole management of Mr. F. Crook. The awards are as follows:—

*Agates*.—L. G. W. Stratford, A. Darby, Rev. F. Tearle, T. C. Burnell, Mrs. M. A. Hayde.  
*Dorkings* (Any variety).—1, Mrs. A. Tindal. 2 and 3, F. Cawa. 4, H. W. Beachey. 5, Viscount Turnour, W. Roe, jun., W. H. Denison, T. Moore, L. G. W. Stratford, T. C. Burnell, W. Harvey. 6, W. E. Middlecott, T. Charrington.  
*Cochins* (Cinnamon or Buff).—Cock.—1, W. A. Burnell. 2, J. Walker. 3, Henry Lingwood. 4, E. P. Percival, J. Bloodworth, W. A. Taylor.  
*Cochins* (Cinnamon or Buff).—Hen.—1 and 2, C. E. Proctor. 3, R. P. Percival. 4, W. White. 5, Mrs. J. Hendrie, Lady Gwydyr, W. A. Taylor. 6, Henry Lingwood, W. A. Taylor.  
*Cochins* (Cinnamon or Buff).—Cock.—1, Cyp, and 4, Mrs. A. Tindal. 2, Henry Lingwood. 3, W. A. Taylor. 4, T. J. Harrison, Henry Lingwood, P. Ogilvie, W. A. Taylor, H. Tomlinson, W. A. Burnell, J. Everett. 5, W. E. Smith.  
*Cochins* (Cinnamon or Buff).—Pullet.—1, Mrs. A. Tindal. 2, W. A. Burnell. 3, A. Darby. 4, G. H. Proctor. 5, Mrs. A. Tindal, Mrs. Alsop, G. H. Proctor, Henry Lingwood. 6, J. Benton, W. A. Burnell.  
*Cochins* (Partridge).—Cock.—1, W. A. Taylor. 2, E. Tudman. 3, Mrs. Tindal. 4, T. Stretch, E. Tudman, Lady Gwydyr, W. H. Crabtree, J. G. Pearson, W. A. Taylor.  
*Cochins* (Partridge).—Hen.—1, Mrs. A. Tindal. 2 and 3, R. P. Percival. 4, T. Stretch, J. H. Jones, W. A. Taylor, E. Tudman.  
*Cochins* (Partridge).—Cock.—1 and 2, Mrs. A. Tindal. 3, J. H. Jones. 4, F. Bennett. 5, Mrs. W. Steven, Mrs. J. Hendrie. 6, T. Stretch, E. Tudman, D. Lewis.  
*Cochins* (Partridge).—Pullet.—1, H. Tomlinson. 2, Mrs. A. Tindal. 3, J. H. Jones. 4, T. J. Harrison, 5, J. H. Jones, R. P. Percival, E. Tudman, Mrs. A. Tindal, Lady Gwydyr. 6, G. Lamb, J. K. Fowler.  
*Cochins* (White).—Cock.—1, E. Tomlinson. 2, T. H. Waterman. 3, R. P. Percival. 4, Capt. G. F. Talbot. 5, J. Bloodworth, J. H. Nicolls.  
*Cochins* (White).—Hen.—1 and 2, Mrs. A. Tindal. 3, W. A. Burnell. 4, Capt. G. F. Talbot. 5, Mrs. A. Tindal. 6, Mrs. J. T. Holmes, Capt. G. F.



Talbot, W. Whitworth, jun., R. S. S. Woodgate, G. H. Proctor, R. A. Boissier, c. J. Turner, R. A. Boissier.

**COCKS (White).—Cockerel.**—1, H. Tomlinson, 2, M. Leno, 3, A. F. Faulkner, c. R. A. Boissier.

**COCKS (White).—Pullet.**—1, J. K. Fowler, 2, W. A. Burnell, 3, Mrs. A. Tindal, 4, J. Bloodworth.

**COCKS (Black).—Lady Gwydyr.**—1, A. Darby, 2, G. Fortey.

**COCKS (Black).—Cockerel.**—1, Cup, and 2, A. Darby, 3, W. Badger, 4, T. Asplen.

**COCKS (Black).—Pullet.**—1, J. Turner, 2, T. Asplen, 3, A. Darby, 4, Lady Gwydyr, 5, E. Kendrick, jun., Miss E. Mansel, G. D. Harrison.

**COCKS (Any variety).**—1, Mrs. J. T. Holmes, 2, Mrs. A. Tindal, 3, C. Sidgwick, 4, W. A. Burnell, 5, Capt. G. F. Talbot, 6, G. Shrimpton, W. A. Burnell, P. Ogilvie, W. A. Taylor, H. Tomlinson, E. P. Percival, T. M. Derry, C. Carr, Mrs. A. Tindal, Capt. G. F. Talbot, T. J. Saltmarsh, C. Bloodworth, 6, M. E. Smith, G. Ellis.

**BRAHMAS (Dark).—Cock.**—1 and Cup, Rev. G. Watson, 2, E. Kendrick, jun., 3, G. F. Ansell, 4, Horace Lingwood, 5, Hon. Mrs. B. Hamilton, 6, R. P. Percival, Horace Lingwood, W. Dorchester, L. Wright, T. F. Ansell, c. Miss E. O. Shuter, Dr. J. Holmes.

**BRAHMAS (Dark).—Hen.**—1, Cup, and 4, T. F. Ansell, 2 and 3, Rev. J. D. Peake, 5, F. Holbrook, 6, Horace Lingwood, 7, G. Maples, jun., L. C. C. R. Norris, F. Bennett, Miss D. Pennant, L. Wright, J. Way, c. E. Pritchard, J. H. Pickles, W. Dorchester.

**BRAHMAS (Dark).—Cockerel.**—1, Cup, 2, and 3, Horace Lingwood, 2, Hon. Miss D. Pennant, 4, F. Bennett, 5, J. Rimmer, 7, W. R. Garner, 8, H. Feast, 9, E. P. Percival, 10, T. Pomfret, 11, E. Pritchard, Hon. Mrs. B. Hamilton, E. Ryder, W. A. Peel, Dr. G. A. Angier, c. Moulson, c. L. Wright, B. B. Glover, Rev. J. Richardson.

**BRAHMAS (Dark).—Cockerel.**—1, Horace Lingwood, 2, Hon. Mrs. B. Hamilton, 3, Hon. Miss D. Pennant, 4, S. Lloyd, 5, J. Brookwell, 6, L. C. C. R. Norris, c. T. Pomfret, Horace Lingwood, J. Harvey, M. Leno.

**BRAHMAS (Dark).—Pullet.**—1, Cup, and 5, E. P. Percival, 2, W. R. Garner, 3 and 4, Horace Lingwood, 4, Hon. Mrs. B. Hamilton, 5, E. P. Percival, 6, Newnham & Manby, 7, Dr. J. Holmes, 8, J. Swan, 9, E. Kendrick, jun., 10, E. Pritchard, Newnham & Manby, W. Birch, R. B. Wood, F. Bennett, E. Ryder, L. Wright, 11, J. Evans, F. Bennett, Rev. T. C. Peake, L. Wright, E. Durand, E. Bennett, Miss D. Pennant, T. F. Ansell, Rev. G. W. Joyce, Rev. J. D. Peake, Horace Lingwood, W. Dorchester, T. Wakefield, Dr. J. Holmes, E. Kendrick, jun., Rev. A. Van Stranzenesse, G. D. Harrison, E. P. Percival, S. Alloway, jun., R. B. Wood, J. Hill, Hon. Mrs. B. Hamilton, N. Edgill, P. Ogilvie, T. P. Ye, c. Miss E. C. Schuter, F. Bennett, Newnham & Manby, L. C. C. R. Norris, F. Le Sueur, Mrs. Griggs, E. Durand.

**BRAHMAS (Dark).—Pullet.**—1, Mrs. A. Tindal, 2, H. Beldon, 3, W. M. Crabtree, 4, T. F. Ansell, 5, W. H. Ward, 6, R. P. Percival, 7, Miss E. C. Schuter, G. Maples, jun., 8, J. Swan, c. Mrs. J. G. Hepburn, Hon. Mrs. B. Hamilton, J. Lyon, Rev. J. D. Peake.

**BRAHMAS (Light).—Cock.**—1 and Cup, R. E. Horsfall, 2, R. P. Percival, 3, P. Haines, 4, J. Bloodworth, 5, Mrs. W. C. Drummond, 6, R. Bird, Dr. G. A. Angier, R. E. Horsfall, E. Lingwood, P. Haines, c. D. Hare.

**BRAHMAS (Light).—Hen.**—1 and Cup, Mrs. A. Tindal, 2, S. Sambrook, 3, P. Haines, 4, J. Turner, 5, Rev. G. Watson, 6, S. Lucas, Mrs. Peet, Rev. G. Watson, S. H. Lloyd, Mrs. E. Heyn, Horace Lingwood, Mrs. J. T. Holmes, W. M. Crabtree, T. Dean, P. Crook, c. J. Long.

**BRAHMAS (Light).—Cockerel.**—1 and Cup, R. E. Horsfall, 2 and 10, T. A. Dean, 3, S. Wadley, 4, Capt. W. Savile, 5, S. Lucas, 6, Horace Lingwood, 7, J. Turner, 8, H. Stephens, 9, J. T. Hinks, 10, R. Bird, Mrs. Peet.

**BRAHMAS (Light).—Pullet.**—1 and Cup, Capt. W. Savile, 2, Dr. G. A. Angier, 3, G. W. Petter, 4, J. Birch, jun., 5 and 6, Horace Lingwood, 6, C. H. Wakefield, 7, R. E. Horsfall, 8, Mrs. A. Tindal, 10, Mrs. G. Bain, 11, Capt. W. Savile, 12, R. Bird, Dr. G. A. Angier, G. W. Petter, R. E. Horsfall, Mrs. J. Walsh, R. J. Foster, J. Benton, P. Haines, J. O. Harrison, G. B. Ladd, c. R. J. Lessall, G. W. Petter, C. Martin, J. J. Hewitt, Mrs. Peet, J. Widdowson, E. J. Foster, T. A. Dean.

**BRAHMAS (Light).—Pullet.**—1, G. W. Petter, 2, and 5, Capt. W. Savile, 3, R. P. Percival, 4, Mrs. A. Tindal, 5, Mrs. F. Cheshire, 6, S. Lucas, 7, E. Cleaver, P. Haines, Rev. G. Watson, M. Hedley, E. Mannoch, T. A. Dean.

**SPANISH.—Cock.**—1 and Cup, D. M. Mills, 2, Mrs. Allsopp, 3, F. Waller, 4, T. Moore.

**SPANISH.—Hen.**—1, E. Jackson, 2, J. Thresh, 3, J. Walker.

**SPANISH.—Cockerel.**—1 and Cup, A. Hewes, 2, and 3, G. K. Chilcott, 4, J. Walker, P. F. Le Sueur.

**SPANISH.—Pullet.**—1, Mrs. Allsopp, 2, H. Goddard, 3, W. Notlage, 4, E. Jackson, J. T. Parker, J. Boulton, H. Goddard, G. K. Chilcott.

**HOUDANS.—Cock.**—1 and Extra, R. B. Wood, 2, W. H. Copplestone, 3, J. Swan, 4, E. B. W. Peel, W. Dring, 5, G. Morris, W. O. Quibell, W. Whitworth, jun., 6, G. D. Harrison, W. Outack, jun., Mrs. Vallance, W. Dring, G. W. Hibbert.

**HOUDANS.—Hen.**—1 and 2, Mrs. Vallance, 3, C. Morris, 4, G. D. Harrison, 5, W. Dring, D. Lane, W. O. Quibell, 6, S. W. Thomas, c. P. Hanson, Mrs. N. Grenville.

**HOUDANS.—Cockerel.**—1, W. O. Quibell, 2 and 3, R. B. Wood, 3, J. K. Fowler, 4, G. D. Harrison, 5, W. Dring, 6, W. O. Quibell, 7, W. Dring, 8, E. A. Bostell, W. Dring, 9, W. O. Quibell, 10, W. Dring, 11, W. Dring, 12, W. Dring, 13, W. Dring, 14, W. Dring, 15, W. Dring, 16, W. Dring, 17, W. Dring, 18, W. Dring, 19, W. Dring, 20, W. Dring, 21, W. Dring, 22, W. Dring, 23, W. Dring, 24, W. Dring, 25, W. Dring, 26, W. Dring, 27, W. Dring, 28, W. Dring, 29, W. Dring, 30, W. Dring, 31, W. Dring, 32, W. Dring, 33, W. Dring, 34, W. Dring, 35, W. Dring, 36, W. Dring, 37, W. Dring, 38, W. Dring, 39, W. Dring, 40, W. Dring, 41, W. Dring, 42, W. Dring, 43, W. Dring, 44, W. Dring, 45, W. Dring, 46, W. Dring, 47, W. Dring, 48, W. Dring, 49, W. Dring, 50, W. Dring, 51, W. Dring, 52, W. Dring, 53, W. Dring, 54, W. Dring, 55, W. Dring, 56, W. Dring, 57, W. Dring, 58, W. Dring, 59, W. Dring, 60, W. Dring, 61, W. Dring, 62, W. Dring, 63, W. Dring, 64, W. Dring, 65, W. Dring, 66, W. Dring, 67, W. 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that has been written about the clashing of shows I find there are four other exhibitions on the same date, and Canterbury the day after. I have heard from the Hon. Secretary of the Ipswich Show that he will forward any specimens exhibited there to any other show if exhibitors will send him the labels."

### CAGE BIRDS AT THE DERBY SHOW.

THE general arrangements were conducted tolerably well, still there are one or two matters that in the future it would be well for the Committee to alter—viz., the setting forth a day for judging, and not letting it be done on the first day unless before the time of opening the Show to the public. Some of the prize cards were not placed upon the cages until daylight had about gone; and as to the detached list of prizes, when it did appear in the form of a tabular key to the already-issued catalogue, I may remark that more credit (if any) was due to the compiler for the intricacy of it than for the utility to exhibitors, visitors, or members of the press.—QUIZ.

**HANLEY SHOW.**—The winners of the three special prizes for Pigeons were awarded, in their sections, one to Mr. Fulton's Carriers, one to his pair of Barbés, and the third to the Rev. Mr. Serjeantson for his White Fantails. As at the two former shows Mr. T. H. Ridpath judged the Pigeons on this occasion.

### THE BRITISH BEE-KEEPERS' ASSOCIATION.

I AM much pleased that the Hon. Sec., Mr. E. Laurance Cleaver, has noticed my remarks touching the shows. He refers me to the catalogue offering £10 in prizes for "the best and largest harvest hive of honey in the comb." The schedule of prizes which he refers to was sent to me, but if I remember aright the £10 was offered by two gentlemen through the Association, but not by it. Indeed one of the gentlemen—viz., the Hon. and Rev. Mr. Bligh—wrote a letter suggesting to the Committee the importance of offering such prizes. The effort made by the hon. and rev. gentleman was most commendable. Last year I suggested that handsome prizes be offered for the heaviest swarms, also for the greatest results in weight (not in comb merely) from one stock hive managed on any system. My suggestion is distinctly different from Mr. Bligh's if I understand him rightly; and I believe mine is of far greater importance, and if adopted will help to advance apiculture much.

How is it that the Association does not offer prizes for such results? and how can the Secretary of that Association or any one else expect to see 2 or 3 cwt. of hives exhibited when no prizes are offered for them? Will the Secretary undertake to do his best next year to offer prizes for such? and if the Committee will not yield to his entreaties in this direction, will he promise to pay the carriage merely of such exhibits? I care not for the honour of taking prizes; I have never competed for one in my life, and never wish to compete; but if next year be a favourable one for honey, I will send up to the Crystal Palace Show the results of one or two stock hives, if the Association will pay their carriage. What more can I do? What else can be done if prizes and encouragements are not offered by the Association?—A. PETTIGREW.

### HIVE COVER.

I HAVE made a hive cover which might be useful to some of your readers, and which I think good and cheap. I procure 2 yards of the material of which rick covers are made (more or less according to size of hives), which I cut so. 1 and 5 are

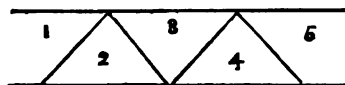


Fig. 97.

sewn together to make a piece like the others, 3 is turned up and down; the four pieces are then joined with the narrowest ends uppermost. It must be well sewn with thread on purpose, to be bought with the material. It must be well done. I had a charwoman, a shoemaker's wife, who thoroughly understood it. I then had it well painted.—TRICERS.

**SPURIOUS HONEY.**—A correspondent writes from the north of England: Owing to the bad honey season all sorts of inventions to manufacture honey are being attempted, and it may be well to put purchasers on their guard. Recently one of our grocers was supplied for sale with two small supers, which looked very nice. On asking the grower if he had any more he replied that he had one other large super, which he promised to bring the following day. He did so, and its size aroused the suspicions of the grocer, who fortunately happened to be a bee-keeper. On testing the so-called super honey it was found to consist of nothing but raw (or preserving) sugar. The grower was taken to task, and obliged to confess that as the season had been so bad he had constantly fed his bees with raw sugar at 8d. per lb.,

for which he was expecting a return of 2s. per lb. for the honey (?)—BETA.

THE length of the report of the Crystal Palace Show compels us to omit other reports and communications until next week.

### OUR LETTER BOX.

**FOWLS IN SMALL SPACE (R. D.).**—You cannot keep more than a cock and three hens in a space 12 feet by 9 feet. You do not say whether the quarter of the grass run is part of the 12 feet. If it is not, you may keep more hens. If you mean a quarter of an acre the three might be eight hens.

**REARING DORCHINGS (J. D.).**—The description you give leaves nothing to desire for Dorchings, as it possesses all that is necessary. They are essentially the fowl of the homestead, and will be found far more profitable than mongrels, or even half-breds. There used to be a good sale in York for good poultry, and if you will kill them young they will then be in perfection as to quality, while the increased size of the breed will cause them to be larger than the mongrels quite full grown, and consequently tough. There are as good Dorchings bred in Yorkshire as in any part of England.

**LOSS OF BEES (C. Clara).**—The fact that your two old hives filled supers this season is pretty good evidence that their bees were not lost from want of food, or driven from home by foul brood. No one can say with certainty what was the cause of the loss of the bees of both your old hives. They might have swarmed unseen, and lost their young queens afterwards on their marriage tours, an occurrence not at all unusual; or their queens may have died of old age when there were no eggs in the hives. More probably, succors were reared and lost in going out to meet the drones. When hives lose their queens from any cause their bees are often so disconsolate and disorganised that they do not attempt to defend their stores, and rapidly dwindle away and die. Doubtless the bees of your cast or swarm were so reduced in number by hunger before you began to feed them that they could not be preserved alive by feeding.

**BEES NEAR NOTTINGHAM (W. T.).**—We are sorry to learn that all your bees were drowned by the late floods. Nottingham is an excellent county for bees, and we think they would do well on the skirts of the town. The fruit trees of gardens yield much honey to bees; after the fruit blossoms fall bees find more honey in fields and forests than they do in gardens. If you cannot find a more elevated spot than your present garden on which to place hives, they may be kept and do well in the lefty house you propose erecting for them.

**POLLEN-CARRYING IN NOVEMBER (A. B.).**—Bees carry home pollen in fine weather as long as they can find it. Even Christmas Roses yield some of it to bees. Your bees working now is a sign of health, not of foul brood. The price of a good stock hive in spring is about £3; small old-fashioned hives may be had of cottagers at a less price.

### METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 23' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.						In Rain.
1876.	Barom. at 9 A.M. and Sea Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at 1 ft.	Shade Tem- perature.		Radiation Temperature.		In sun.	On grass.	
		Dry.	Wet.			Max.	Min.	Max.	Min.			
Nov.	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	deg.	In.	
We. 10	29.666	51.0	50.4	W.	45.4	53.4	34.5	53.3	34.1	0.670	—	
Th. 11	29.688	42.8	44.0	W.	46.1	46.6	36.1	76.7	39.0	—	—	
Fri. 12	29.886	40.3	39.0	N.	41.9	50.3	36.7	81.7	34.0	0.594	—	
Sat. 13	29.665	44.0	43.1	E.S.E.	44.1	57.5	37.8	86.5	38.2	0.448	—	
Sun. 14	29.651	48.4	45.0	W.	45.0	57.0	43.9	86.8	43.3	0.080	—	
Mo. 15	30.310	37.0	35.9	N.W.	45.0	48.0	38.0	76.7	29.3	—	—	
Tu. 16	30.092	44.6	43.4	S.W.	43.3	61.0	33.3	65.0	27.8	0.260	—	
Means	29.500	43.9	42.5		44.8	53.0	36.5	70.9	34.2	1.003		

### REMARKS.

10th.—Wet and stormy early; very dark for a short time about 8.30 A.M., then cleared and sun shining by 9; sun and cloud alternating all day, but heavy rain at night.  
11th.—Rain in night and early morning; fair at 9 A.M. and all day, but rather dull.  
12th.—White frost early; a pleasant frosty day; very fine till sunset, then rather foggy.  
13th.—A thoroughly wet morning, rather less so in the afternoon; but high wind and heavy rain at night.  
14th.—Very windy and rainy all day.  
15th.—Slight frost, but very fine all day.  
16th.—Fine morning, but rain soon after noon; showers during the afternoon; very heavy rain during the evening; fine at midnight.  
Extreme oscillations of barometer, and frequent heavy rain; ground saturated and air very damp.—G. J. SYMONS.

### COVENT GARDEN MARKET.—NOVEMBER 17.

Now that the glut of Grapes is over prices begin to mend. A cargo of St. Michael Pines has arrived during the week direct from the island in very good condition, and are being sold at reasonable prices. Pears consist of Marie Louise, Glou Morceau, and Crassanne. Kent Cobs are realising better prices.

### FRUIT.

	s.	d.	d.		s.	d.	d.
Apples.....	0 to 3	0		Peaches.....	doz.	12	0 to 15
Obestants.....	bushel	13	0 30	Pears, kitchen.....	doz.	0	0 0
Figs.....	doz.	0	0 0	dessert.....	doz.	1	0 0
Filberts, Cobs.....	lb.	0	5 0	Pine Apples.....	lb.	3	0 0
Grapes, hothouse.....	lb.	1	0 5	Strawberries.....	lb.	0	0 0
Lemons.....	£100	6	0 12	Walnuts.....	£100	4	0 10
Oranges.....	£100	8	0 18	ditto.....	bushel	1	6 2

## WEEKLY CALENDAR.

Day of Month.		Day of Week.	NOV. 25—DEC. 1, 1875.	Average Temperature near London.			Sun Rise.		Sun Set.		Moon Rise.		Moon Set.		Moon's Age.	Clock after Sun.	Day of Year.	
				Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	s.	
25		TH	Royal Society at 8.30 P.M.	45.4	33.7	40.0	37	47	57	48	0	45	30	45	27	13	44	330
26		F		47.2	33.9	40.0	39	7	55	8	18	6	45	2	28	13	25	330
27		S	Royal Botanic Society at 8.45 P.M.	47.0	33.6	40.3	40	7	55	8	38	7	5	3	0	13	5	331
28		SUN	FIRST SUNDAY IN ADVENT.	48.1	33.9	41.0	42	7	55	8	40	8	38	3	1	11	45	332
29		M	Royal Geographical Society at 8.30 P.M.	51.3	33.8	42.5	43	7	54	8	45	9	13	4	2	11	24	333
30		TU	Royal Society (Anniversary) at 8.30 P.M.	43.0	34.5	41.3	45	7	53	8	40	10	4	5	3	11	3	334
1		W	Royal Horticultural Society—Fruit and Floral Com- mittee.	43.5	34.9	41.7	45	7	53	8	32	11	7	6	4	10	40	335

From observations taken near London during forty-three years, the average day temperature of the week is 43.0°; and its night temperature 33.9°.

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## MUSHROOM-GROWING.

**I**F I were asked what it is which causes the greatest number of sleepless nights to the professional gardener I should say, Mushrooms. Yes, many of us have had Mushrooms on the brain for weeks together, for we are sure to have them there when they do not grow in the beds, and sometimes with all our care and attention to every little detail they will disappoint us. The spawn may run beautifully and the surface of the bed may look as if covered with myriads of homeopathic globules, and promise in a short time to supply us with Mushrooms by the basketful; but, alas! from some mysterious cause our hopes are never realised, and we are almost tempted to give up in despair. This happens at times to the most practical growers after years of unbroken successes. Let no one be surprised, then, at an occasional failure, for such a thing happens occasionally with all of us. I will endeavour to point out some of the weak points of the ordinary Mushroom-grower. It is an easy matter we know to have abundance at times—anybody can manage that—but to have a supply every day in the year, as is required in all large private establishments, is not so easy.

I have read in old calendars and nurserymen's catalogues directions for making-up beds in September to last all through the winter, and in February to last all summer, but I was never so fortunate as to have such accommodating beds; sometimes one will keep on bearing a little for three or four months, but this is the exception, and they can never be depended on to last that time. On an average, perhaps they last five weeks. In the spring and autumn they often last longer than they do in winter and summer.

To insure a succession I make up a small bed every three weeks; this generally keeps two beds in bearing. It is best, I think, not to have all the eggs in one basket; there is always an excuse for having too many, but no excuse for having none. The commonest mistake made, I think, is in exhausting the droppings too much before making-up a bed; they are heated and turned and heated and turned again, and the steam may be seen rushing away as if from a locomotive. This is downright waste. The steam is caused by the combustion of gases, which ought to be retained as much as possible for growing the Mushrooms, and the more there is consumed in this way the less satisfactory will the beds be. If Mushrooms from such exhausted material are produced at all they will be thin and leathery, or the crop will be scanty. Provided the beds when made up are in the right condition as regards moisture, and they do not heat too violently, the fresher the material is used the better. Mushrooms are always Mushrooms I know, but there is a surprising difference in the quality of them according to the method in which they are produced.

The best way I have found for making the most of the material is to have the droppings perfectly fresh, and

with these mix as much dust-dry soil as will absorb all superabundant moisture, breaking them about well with the fork at once so that the soil can be thoroughly mixed with them, and then leave all spread thinly in an open shed till required for use, never allowing them to heat much till made up in the bed. Practice alone can determine the quantity of soil to be used; it will often require fully a third part. The beds when made should not heat too much or they will burn themselves dry; 100° for a few days will not harm them, and as soon as the temperature is seen to be declining the spawn should be inserted in the ordinary way. 90° is not too high for spawning, provided we are certain the heat is subsiding. When down to 80° the soil should be put on, and in a few days afterwards a covering of dry litter or something else which will keep the heat of the bed up to about 75° for a fortnight; after which it may gradually fall to about 60° when the beds are in bearing.

Beds will come into bearing much quicker when the material is used fresh as I recommend. I have gathered Mushrooms in three weeks from the time of spawning, and the beds are seldom longer than five weeks before they are profitable.

The atmospheric temperature best suited for Mushroom-growing is an almost fixed one of about 55°, and a great deal depends on the way this temperature is kept up. It is best done without fire heat if possible, and for this reason a Mushroom house should be built so that it is not much affected by the outside weather. This is no doubt the secret of the success attending the growers of Mushrooms in the caves about Paris, that they are independent of outside weather. If Mushroom houses must be built above ground they should be constructed with hollow walls and hollow roofs, and the windows, if there are any, should be double-glazed. The outside air will not then have much effect on the temperature of the house, and the warmth from the beds will generally be sufficient for all purposes.

In summer we succeed best with the beds outside against a north wall. The other details of my management are similar to those of others growers, and it is therefore, I think, unnecessary to say more about them. —WILLIAM TAYLOR.

## DELPHINIUMS.

AMONGST the garden flowers which have of late years received consideration from the hybridiser there are hardly any more deserving of notice than the stately herbaceous Larkspurs. They are of a colour rare amongst garden flowers, blue; for while we have an abundance of scarlet, pink, yellow, &c., our blue flowers are, comparatively speaking, few. They are perfectly hardy, and will thrive in any ordinary garden soil, although, like most plants, doing best when it is of a kindly nature. Then, in addition to their first bloom, if they are not allowed to seed they will throw up fresh shoots if cut down; and many of the side sprays from these make effective flowers for mingling with others

in vases, bouquets, &c. Their culture is of the simplest character, and they soon make large stools, which had better be occasionally lifted and divided, an operation best done in early spring. But let the cultivator beware of snails; the young shoots, when they are just peeping above ground in early spring, form a delicacy for the whole tribe of slugs, and therefore it is very desirable to keep the stools well surrounded with soot and lime, and to have a sharp look-out at night for the depredators. As the plants seed freely, those who have space and are so inclined will, by growing a few of the best varieties, be able to obtain a great number of varieties.

Having this year been with Mr. Lakin of Chipping Norton, an ardent lover of herbaceous plants, and at the nursery of Mr. Ware of Tottenham, and having grown a selection of Mr. Laing's and noted some of the best, it may not be unacceptable to some of the readers of the Journal if I subjoin their names and a short description of each, dividing them into double and single sections.

#### DOUBLE.

*Alpeucuroides*.—A singular foxbrush-looking flower with a very closely set spike of greyish-blue flowers. Effective but not graceful.

*Argus*.—Dwarf, with flowers of azure blue and suffused slightly with violet, especially at the edges.

*Barlow's Perfection*.—Large spike, very brilliant blue, and flower closely set on the spike.

*Eugène Mezard*.—Fine compact spike of large size. Flowers blue and rose with white centre.

*Eugène Verdier*.—Ranunculus-shaped flower; blue and violet with starry white centre.

*Herman Stenger*.—Very fine; violet and blue with white centre. About 4 feet high, and a very striking plant.

*Keteleeri*.—A very large, bright, sky-blue flower.

*Le Mastodon*.—Bright blue; an immense flower, centre light. Fine spike.

*Louis Fiquier*.—Semi-double; rosy violet and blue.

*Madame Henri Jacotot*.—Light azure blue. A very fine flower of brilliant colour.

*Triomphe de Poissy*.—Ranunculus-shaped flowers of clear blue. Very fine.

*Victor Lemoine*.—Beautiful light blue, with lighter centre; petals imbricated. Very attractive.

#### SINGLE.

*Belladonna*.—One of the loveliest blue flowers grown. Unapproachable in its peculiar hue by any other garden flower; reminding one more of the beautiful *Vanda cœrulea* than of anything else. The smaller sprays are much coveted for bouquets.

*Formosum*.—An old but very effective flower, and well deserving a place notwithstanding the large number of newer varieties.

*Gloire de St. Maude*.—Dwarf, large flower; blue and black. Effective.

*General Ulrich*.—Cobalt blue shaded with bronze. Fine.

*M. Rivière*.—Violet red shaded white. Quite distinct in colour and very beautiful.

*Marquis de St. Innocent*.—Sky blue and lilac, white centre. Very distinct.

*Wilhelm Pfitzer*.—A very fine bright blue flower. Striking in colour.

With these, or indeed a selection from them, I do not think any cultivator will be disappointed.—D., Deal.

### HYBRIDS RAISED BY JAMES VEITCH & SONS.

GREAT indeed has been the enterprise and success of hybridists during this our day and generation. Fruits, flowers, and vegetables have been increased in numbers and improved in character to an extent which has no parallel in past times. Genus after genus of plants has been taken in hand, and from them are evolved new beauties—hybrids, as it were, of art and nature. Ever and anon the horticultural world has been startled by a fresh "break," a brilliant success it may be, of *Coleuses* and *Dracenas* by Mr. Bause, or *Clematises* by Mr. Jackman. These are all great achievements, and stand out in bold relief by the nature of the plants, their striking colours and undoubted usefulness.

But there are other evidences of lifelong work of the same nature in which the minutest care, the greatest manipulative skill, and extreme patience have been exercised before the results have been seen and success has been recognised. The

fruits of these labours, too, have necessarily appeared at intervals more or less remote, and their aggregate value was consequently not seen to the fullest advantage until Messrs. Veitch & Sons submitted the wonderful collection of plants which were worthily awarded a gold medal on the 10th inst. by the Council of the Royal Horticultural Society. This remarkable group merits special note alike by the intrinsic excellence of the plants, and many of them as being the first creations in their genera of the hybridiser's skill.

It is now nearly twenty years since Mr. Dominy received the medal of the Devon and Exeter Botanical and Horticultural Society for the first hybrid Orchid which had ever been raised, *Calanthe Dominii*, and almost every year since has brought out some new gem surpassing the last, and future years will give birth to newer forms which have not yet unfolded their characters. Orchids are not everybody's plants, they cannot be seen in every house and market; yet even of these one at least has become indispensable to all collections of winter-flowering stove plants, *Calanthe Veitchii*. This plant is not only distinct in its beauty, vigour, and free-flowering properties, but is remarkable as being a "mule," the results of fertilising *C. vestita* with *Limatodes rosea*. There are other results of noteworthy and unusual alliances, as *Phaius* and *Calanthe*, *Goodyera* and *Anacostichilus*, *Azalea* and *Rhododendron*, and *Lapageria* and *Philexia*.

This firm was the first to succeed in raising hybrids of *Nepenthes*, *N. hybrida* being the forerunner of other distinct varieties. *Cattleyas* were made amenable to artificial fertilisation, resulting in a family of unequalled diversity and beauty. *Cypripediums* have also yielded a rich harvest; and *Aërides*, *Lælias*, and *Dendrobiums* have not been proof against the hybridiser's skill. Here it was that the first "break" was made in the *Dracenas*, and here also, to coin a term, originated the *Azaleo-Rhododendrons*.

As an instance of the patience needed in raising plants included in this list, is the fact that *Nepenthes*, *Calanthes*, and *Cypripediums* are three to five years, *Aërides* ten to twelve years, and *Cattleyas* five to fifteen years, before they bloom after the seed is sown; and the constant watchfulness and care in nursing into life and to perfection plants of this nature is a tribute to the perseverance of the raisers that can hardly be appreciated by the outside world. The extraordinary list of plants now noted are an honour to the famed establishment of the Messrs. Veitch, as they are a splendid example of the power and influence of hybridisation. As being the productions of one firm they are probably unequalled in the annals of European horticultural enterprise. Their names and parentage are submitted. The list alone is eloquent, especially when considering the nature of the plants which the firm has been operating on for a quarter of a century.

Progeny.	Parents.
<i>Nepenthes Dominii</i>	<i>N. Rafflesiana</i> and <i>N. species</i> (green)
hybrida	<i>N. distillatoria</i> and <i>N. species</i> (spotted)
hybrida maculata	" " (red)
Sedenj	" " "
Cheloni	<i>N. Hookeriana</i> and <i>N. Dominii</i>
intermedia	<i>N. sp.</i> (very dark) and <i>N. Rafflesiana</i>
<i>Cattleya exoniensis</i>	<i>C. Mossie</i> and <i>Lælia purpurata</i>
Dominiana	<i>C. amethystina</i> and <i>C. maxima</i>
Dominiana alba	" " "
Dominiana lutea	" " "
Dominiana hybrida	<i>C. granulosa</i> and <i>C. Harrisoniae</i>
Sidneyana	<i>C. crispata</i> and <i>C. granulosa</i>
Brabantia	<i>C. Loddigesii</i> and <i>C. Aelandiae</i>
quinquecolor	<i>C. Aelandiae</i> and <i>C. Forbesii</i>
devoniensis	<i>C. crispata</i> and <i>C. guttata</i>
Mangeli	<i>C. Mossie</i> and <i>C. Loddigesii</i>
Veitchii	<i>C. crispata</i> and <i>C. labiata</i>
hybrida maculata	<i>C. guttata</i> and <i>C. intermedia</i>
fausta	<i>C. Loddigesii</i> and <i>C. exoniensis</i>
<i>Cypripedium Dominii</i>	<i>C. Pearcei</i> and <i>C. caudatum</i>
Harrisonianum	<i>C. barbatum</i> and <i>C. villosum</i>
veixillarium	<i>C. barbatum</i> and <i>C. Fairrieanum</i>
Sedenj	<i>C. Schlinitz</i> and <i>C. longifolium</i>
Marshallianum	<i>C. concolor</i> and <i>C. venustum pardinum</i>
Arthurianum	<i>C. Fairrieanum</i> and <i>C. insignis</i>
selligerum	<i>C. levigatum</i> and <i>C. barbatum</i>
hybridum	<i>C. Stonei</i> and <i>C. barbatum</i>
tesellatum	<i>C. concolor</i> and <i>C. barbatum</i>
<i>Calanthe Veitchii</i>	<i>C. vestita</i> and <i>Limatodes rosea</i>
Dominii	<i>C. mauea</i> and <i>C. fureata</i>
<i>Phaius irroratus</i>	<i>P. grandiflorus</i> and <i>Calanthe Veitchii</i>
<i>Anacostichilus Dominii</i>	<i>A. xanthophyllus</i> and <i>Goodyera discolor</i>
<i>Goodyera Veitchii</i>	<i>Goodyera discolor</i> and <i>Anacostichilus Veitchii</i>
Dominii	<i>Goodyera discolor</i> and <i>Anacostichilus Lowii</i>
<i>Lærides hybridum</i>	<i>Læ. affine</i> and <i>Læ. Fieldingi</i>
<i>Amelia Pilcheri</i>	<i>L. Perrini</i> and <i>Cattleya crispata</i>
<i>Pilcheri alba</i>	" " "
<i>Dendrobium Dominii</i>	<i>D. nobile</i> and <i>D. moniliforme</i>

Progeny.	Parents.
<i>Lælia flammea</i>	<i>L. cinnabarina</i> and <i>L. Pileheri</i>
<i>Zygopetalum Sedeni</i>	<i>Z. maxillare</i> and <i>Z. Mackayi</i>
<i>Chysis Cheloni</i>	<i>C. bracteosa</i> and <i>C. Linningshii</i>
<i>Alocasia Sedeni</i>	<i>A. Lowii</i> and <i>A. metallica</i>
<i>Veitchii superba</i>	<i>A. Veitchii</i> and <i>A. Lowii</i>
<i>intermedia</i>	<i>A. longiloba</i> and <i>A. Veitchii</i>
<i>Cheloni</i>	<i>A. metallica</i> and <i>A. macrorrhiza</i>
<i>Dracaena hybrida</i>	<i>D. magnifica</i> and <i>D. albicans</i>
<i>Taylori</i>	<i>D. magnifica</i> and <i>D. Moorei</i>
<i>Rhododendron Princess Royal</i>	<i>R. javanicum</i> and <i>R. jasminiflorum</i>
<i>Princess Alice</i>	<i>R. Edgworthii</i> and <i>R. ciliatum</i>
<i>Princess Alexandra</i>	<i>R. Princess Royal</i> and <i>R. Brookii</i>
<i>Princess Helena</i>	<i>R. Lobbi</i> and <i>R. jasminiflorum</i>
<i>Princess of Wales</i>	<i>R. Lobbi</i> and <i>R. Princess Royal</i>
<i>Princess Thyra</i>	<i>R. Brookii gracilis</i> and <i>R. Princess Helena</i>
<i>Crown Princess of Prussia</i>	
<i>Duchess of Teck</i>	<i>R. Lobbi</i> and <i>R. Princess Royal</i>
<i>Duchess of Edinburgh</i>	" "
<i>Prince Leopold</i>	" "
<i>Begonia Fedeni</i>	<i>B. species</i> and <i>B. boliviensis</i>
<i>intermedia</i>	<i>B. Veitchii</i> and <i>B. boliviensis</i>
<i>Cheloni</i>	<i>B. Sedeni</i> and <i>B. boliviensis</i>
<i>Cheloni stella</i>	<i>B. Veitchii</i> and <i>B. Sedeni</i>
<i>Cheloni vesuvius</i>	<i>B. Clarki</i> and <i>B. Sedeni</i>
<i>Excelsior</i>	<i>B. cinnabarina</i> and <i>B. Cheloni</i>
<i>Model</i>	<i>B. Pearcei</i> and <i>B. Sedeni</i>
<i>Acme</i>	<i>B. intermedia</i> and <i>B. Sedeni</i>
<i>Emperor</i>	<i>B. Clarki</i> and <i>B. Cheloni</i>
<i>80 C</i>	<i>B. Sedeni</i> and <i>B. intermedia</i>
<i>90 A</i>	<i>B. Sedeni</i> and <i>B. stella</i>
<i>Domini</i>	<i>B. rex</i> and <i>B. argentea</i>
<i>Amaryllis Cheloni</i>	<i>A. Ackermannii pulcherrima</i> and <i>A. pardina</i>
<i>maculata</i>	" "
<i>Brilliant</i>	" "
<i>Fuchsia Dominiana</i>	<i>F. spectabilis</i> and <i>F. serratifolia</i>
<i>Philegeria Veitchii</i>	<i>Lapageria rosea</i> and <i>Philœa buxifolia</i>
<i>Gloxinias</i>	Many hybrids with flowers of approved form and colour

## FRUIT CULTIVATION AND MANAGEMENT IN KENT.

At a meeting of the Institute of Surveyors held at 12, Great George Street, Westminster, on the evening of Monday last, G. Webb, Esq., of Tunstall near Sittingbourne, read the following paper on fruit cultivation and management in Kent. The chair was occupied by Thomas Huskinson, Esq., the President of the Institute.

So many able papers on matters of interest and importance to surveyors have been read in this room, that in appearing before you to treat of fruit-planting I feel that I have undertaken a task which I can hardly hope to accomplish as I should desire. I should not have ventured indeed to approach it at all were it not for the hope that other members, by their greater knowledge and experience, may be able to make up for my deficiencies. I am obliged also to confine my observations to Kent, as I have seen very little of the orchards in other counties.

It is hardly more than twenty years since railways first opened out our county, but during this short period the cultivation of fruit has received greatly increased attention both at home and abroad. Where soil and climate are favourable new fruit plantations are to be seen springing up in all directions; fruit-growing begins to figure prominently among the industrial resources of the kingdom, and a great question must soon arise whether the consumption of our increasing population will keep pace with the supply afforded from so enlarged an area of planted land. This year has probably been the best for many years past to test the question, for the crop of all kinds, more especially of Cherries, has been enormous; but I believe that if the rainy season had not prevented the gathering, the greater part of this heavy crop would have found a remunerative market in the manufacturing districts. From the returns of 1874 the fruit crop in England is stated as occupying, excluding gardens, 145,622 acres. The counties which contribute the largest acreage are Devon, 24,812; Hereford, 21,534; Somerset, 19,857; Worcester, 13,390; Gloucester, 11,152; Kent, 11,186; Cornwall, 4,180. No other county has 4000.

Now, we cannot be surprised that the study of fruit, whether the object be pleasure or profit, should more and more attract the attention of our countrymen; for the interest attaching to its culture never ceases, and there is no period of the year unrepresented by some fresh source of delight or interest. Even in winter, after the trees are stripped, we eagerly watch to see what fresh wood has been made; what are the prospects of fruit buds, and what further pruning is required; but apart from purely pleasurable associations I shall be able to show you that good returns have been realised by those who have

spared neither pains nor expense in the cultivation of their fruit land.

Now, before speaking of fruit plantations, I ought to say a few words as to the preparation required in making fresh orchards; for everything depends on a good start. The first thing to be done is to select the ground. If it be possible to do so, avoid all low-lying lands or valleys, for valleys catch the frost most; and take the higher land, having a south-east, south, or south-west aspect. The more trees are exposed to the east the better, for the morning sun in such situations comes out gradually on the bloom; whereas, if the sun (after having been up some time) falls suddenly on the trees in valleys, the bloom is certain to be cut off. We had a marked instance of this in the severe frost of May, 1871. One orchard lay in a valley, with rising ground to the west, and the bloom was not only completely cut off, but the trees themselves were so injured that they took three years to recover; but where the land was only 12 feet higher the frost took very much less effect. Shelter on the south-west is very desirable, either by means of a good high Quick hedge or a belt of Larch, as westerly gales do much injury to both fruit and trees.

Before planting, the land should have a dressing of well-rotted compost. It should then be deeply ploughed and subsoiled or dug, and trenching, although expensive, always pays. The field should then be properly squared and set out; the holes for standard trees well thrown out, not less than 8 feet over by 2 feet deep (for which we pay about 4s. per 100), and, if possible, every tree should be planted by the 10th of December. The depth best suited is, say, from 6 to 9 inches. Young trees should always be carefully watched during the summer after planting. The moment the leaves droop the water-cart should be employed; or, where this cannot be done easily, some rough farmyard dung should be put round the trees to keep in the moisture. In exposed situations, or where there is stock, the trees will require some support for protection. Five or six old dipped hop poles or stakes bound with a piece of iron hooping at the top make a good guard; or, against sheep or rabbits, tree guards cut from common wire netting answer well. After the tree is once started the pruning knife must be freely used for the first three or four years to form a good head, and the shoots will require to be both shortened and thinned. It is better to clear the inside of a tree while young than after it is old.

Next comes the great question, What to plant? It is, of course, most important to select the sort of fruit and the kind of cultivation which specially suits each locality, for herein rests future success or disappointment. The questions of soil, climate, aspect, and the description of fruit best adapted to them must be deeply weighed and considered; and after all this is done there still remains another difficult consideration—namely, Covent Garden Market. We must please our customers and must keep pace with the times, or all our care and skill in cultivating will go for nothing. The popular sort of to-day may in three years' time be entirely discarded; and then will come all the mortification of having to replant or to re-graft, and a great loss of both time and money. In showing the necessity of studying climate, I cannot give you a better illustration than the Ohaumontal Pear. In Jersey these Pears grow on the bush, and are so fine that they frequently sell for 1s. each. In Kent, about 100 feet above the sea level, this sort bears well, and two years out of three is well flavoured; but at an increased altitude of 800 feet the fruit is no better than a Turnip.

Again, as to the study of the market. The sorts that often engage the attention of the grower are by the fruit-salesman or cotermonger the most neglected. The latter wants an Apple or Pear that will last beyond a day, and which will preserve its colour and quality. Pears such as Williams' Bon Chrétien, Beurré Boe, and Beurre de Capiaumont are the kinds which answer their purpose best; but fine showy sorts like the Beurré d'Amanlis, Colmar d'Été, and Gratioli they care little for. That useful and early Apple the Keswick Codlin formerly sold well, but now, from being so plentiful, hardly pays expenses of sale.

I now proceed to treat of fruit plantations under three different classes:—1st, Orchards planted entirely with standard trees, the bottom being grass, fed-off by sheep. 2ndly, Fruit plantations containing standards or half-standards, with which is raised a plantation of Gooseberries, Currants, nuts, &c. 3rdly, Fruit plantations which grow bush fruit, and of the berry tribe only. I may here state, that by the terms I mean to include Gooseberries and Currants, both Red and White.

While dealing with these classes I propose to refer to the sorts of fruit most applicable to each kind of cultivation.

Orchards are, perhaps, the most desirable on the whole, for the reason that they require less labour and last longer; nor can anything exceed the beauty of an orchard when in full bloom; for the effect of the snow-like blossom, aided by the greenward beneath, is most charming. The plan now usually adopted is to set the permanent trees of Cherries, Pears, or Apples 10 yards (or where the land is very strong, 12 yards) apart each way, with a Plum as an intermediate plant. The Plum is the plant generally selected, as it rarely lasts longer than the time required for the other sorts to get up. This gives eighty trees to the acre.

As a native of East Kent I may, perhaps, be excused for commencing with the Cherry, which, I believe, was first introduced into our county. Hasted in his "History of Kent," under the head of "Tenham (or Teynham)," says, quoting Lambarde, "That this parish with thirty others lying on each side of the great road from Rainham to Blean Wood, was in his time the Cherry garden and Apple orchard of Kent, and such it undoubtedly continued to be till within memory. It was the parent from whence the other plantations issued, for Richard Hayns, fruiterer to King Henry VIII., having observed that those plants which had been brought over by our Norman ancestors had lost their native excellence by length of time, and that we were served from foreign parts with these fruits on that account—which he saw no reason for, as neither the soil or climate here were unequal to the bringing of them to perfection—determined to try a plantation of them here; for which purpose having in 1538 obtained 105 acres of rich land, then called the Brennet, and having with great care, good choice, and no small labour and cost, brought plants from beyond the seas, he furnished this ground with them in rows in the most beautiful order. These fruits consisted of the sweet Cherry, from hence usually called the Kentish Cherry; the temperate Pippin, hence for the like reason called the Kentish Pippin, and the Golden Benet." Mr. Furley in his "History of the Weald of Kent," also records that Camden, following Lambarde, describes Kent as abounding in Apples beyond measure, as also with Cherries, which were brought out of Pontus into Italy 680 years after the building of Rome, and 120 years afterwards into Britain (A.D. 48). Mr. Furley also observes that Fuller, who published his "Worthies" in 1662, states that one of the orchards of this primitive plantation consisting of thirty acres, in one year produced fruit which sold for £1000. As Mr. Furley justly observes, "It may be doubted, looking at the difference in the value of money, whether our modern cultivators can surpass this return." But to proceed. Cherries like a dry subsoil and will not do in the clays, neither do they like cultivation for any length of time; and although the trees will attain a good size and bear at times tolerably well, they do best on grass, and when their roots are undisturbed. Plantations of Cherries are, however, frequently raised on cultivated land with a crop of underfruit, and the trees will in this way make wood very fast. After eight or ten years, however, the land should be laid down to grass. A good climate is indispensable for Cherries, especially such sorts as the Bigarreau and the Duke tribe. These sorts flourish best at an elevation of from 80 to 900 feet above the sea level; Black Heart, Kentish, and Turkey Hearts will do fairly up to 400 feet; but at any elevation beyond this the chance of a crop is very precarious, and the fruit is indifferent. It is odd that although our great propagators have added of late years so many excellent and useful varieties to the stock of Apples, Pears, and Plums, yet with Cherries we have had but few additions. The old recognised sorts continue to hold a prominent place in all fresh planting. We much require a few good early sorts to compete with the foreigner; but what new sorts we have must be proved before we know their standard qualities. For all useful purposes I should recommend for orchards—

Early Purple Gean  
Adams' Crown  
Frogmore Bigarreau  
May Duke  
Governor Wood  
Cleveland Bigarreau  
Elton  
Knight's Early Black  
Old Black Heart  
Walsley  
Bigarreau

Mammoth  
Mary  
Black Tartarian  
Black Eagle  
Flemish  
Turkey Heart  
Florence  
Kentish  
Cluster  
Morello

The above will ripen in the order in which they are placed.

The Bigarreau, and Cluster, make the largest trees; indeed, the latter might be planted as an ornamental tree in any park. It is of no unfrequent occurrence to obtain from eighteen to twenty-five sieves of 48 lbs. each from a Cluster. Mr. Neame of Selling Court has sent to market forty and a half sieves from one tree (nearly a ton); but what is quite as wonderful, I have known a tree at Milton which has grown twenty sieves of Adams' Crown. Cherries where they thrive as a rule pay well. In letting an estate some fourteen years ago, where it was incumbent on us to make the most we could of the property, we decided to reserve the fruit and let the bottoms. There are about ninety acres of mixed fruit, principally Cherries. The fruit has been sold by auction when fit to gather. I give you the return of these orchards, together with some others which come under our notice and management. The expenses of sale are not taken off, but may be taken at about 2 per cent. The bottoms are let at about £2 per acre, and an allowance is made to the tenant for a proportion of rates and tithes.

Name of Parish.	Number of consecutive years the fruit has been sold by Auction.	Average.		Annual average sale for the years stated in the column 3 of		Total average sale of Cherries and Hard Fruit.		Average Return per acre for years stated.		Remarks.
		A.	P.	Cherries.	Hard Fruit.	£.	s.	£.	s.	
Orchards.	14	66	0	1814	500	1714	0	10	9	15 acres of these have not arrived at perfection. Old plantations.
Ditto	15	80	0	880	250	600	0	20	14	The same.
Ditto	15	88	0	488	140	578	0	17	19	This orchard has low and flat.
Ditto	15	10	0	60	60	127	0	13	14	An old plantation; has well.
Ditto	15	8	80	88	6	94	10	84	7	Sold privately to gather.
Ditto	5	9	0	—	—	970	0	80	0	The same.
Ditto	4	7	0	—	—	928	0	57	0	

The plan of selling by auction is an easy one for the grower, and, on the whole, we find that the trees are fairly taken care of. I find the cost of gathering and marketing Cherries to be about 8s. per sieve, which is an increase of about 1s. compared with twenty-five years ago. We calculate that we have made on the trees for the last ten years an average of 5s. 6d. per sieve.

I next pass to Pears, which require a deep rich soil, and of the two a better climate than Cherries; but they are not so



much grown in Kent as the latter. The sorts principally grown for profit are—

TIME OF RIPENING.	TIME OF RIPENING.
Doyenné d'Été ..... July.	Suffolk Thorn ..... October.
Chalk ..... July.	Eyewood ..... October.
Citron des Carmes ..... July.	Outhorne ..... October.
Lammes ..... August.	Bourré Rose ..... Oct. and Nov.
Windsor ..... August.	Oslebasse ..... Oct. and Nov.
Oudlot Bonnet ..... August.	Aston Town ..... Oct. and Nov.
Bellissime d'Automne Aug. and Sept.	Bourré de Capisau- mont ..... Nov. and Dec.
Colmar d'Été ..... September.	Duchesse d'Angou- lême ..... Oct. and Nov.
Williams's Bon Chrê- tien ..... September.	Rondelet ..... November.
Yat ..... September.	Nutmeg ..... Dec. and Jan.
Bourré d'Amante ..... Sept. and Oct.	Moccos ..... December.
Bergamot ..... September.	Ocelline ..... Dec. to April.
Hessle ..... September.	
Marie Louise ..... October.	

There are also many new sorts, but they require proving before we can know whether they will bear on standards. Many good Pears, it may be observed, do well on the bush which will not do as standards. I will name a few of the best sorts for the bush, and will also digress a little by recommending a few for a wall.

TIME OF RIPENING.	TIME OF RIPENING.
Doyenné d'Été ..... July.	Citron des Carmes ..... July.
Bourré Giffard ..... August.	Jargonelle ..... August.
Bourré de l'Assomp- tion ..... August.	Fondante d'Automne Marie Louise (on north aspect) ..... October.
Dédré Coradille ..... Aug. and Sept.	Ganeel's Bergamot ..... Oct. and Nov.
Colmar d'Été ..... September.	Brown Bourré ..... November.
Bourré Goubaux ..... September.	Van Mone Léon Le- gation ..... November.
Souvenir du Congrès Grafton of Jersey ..... September.	Glori Marceau ..... November.
Louise Bonne of Jersey ..... September.	Urbaniste ..... Oct. and Nov.
Bourré Suprafin ..... October.	Hayah's Prince of Wales ..... November.
Bourré Hardy ..... October.	Fasse Colmar ..... Nov. and Dec.
Doyenné d'Automne ..... Oct. and Nov.	No plus Meuris ..... December.
Marie Louise d'Ussé ..... October.	Chamontel ..... December.
Belle Julie ..... October.	Bourré Dial ..... December.
Pittaston Duchesse ..... Oct. and Nov.	Bourré d'Armenberg ..... Dec. and Jan.
Maréchal de Cour ..... November.	Winter Nalis ..... Dec. and Feb.
Baronne de Mello ..... November.	Bergamotte d'Espere ..... Feb. and April.
Bourré Duval ..... November.	Prince Albert ..... February.
Durondeau ..... November.	Bourré Bance ..... March.
Thompson's ..... November.	Alexandre Rivort ..... February.
Éclairin Gréguin ..... December.	Hayah's Victoria ..... Jan. and Feb.
Bourré Sterckmann ..... Jan. and Feb.	St. Germain (very fine, but coarse) ..... April.
Joséphine de Malines ..... Feb. and May.	

Plums are grown in our orchards merely to fill up intermediate spaces between other trees. They never make very large heads, and consequently are more suited for confined spaces; neither do they last so long as Cherries, Pears, or Apples, for the wind has great effect on them, and when they attain to any age they lose large limbs. Their roots skim just under the surface, and they consequently soon derive benefit from any dressing of manure. Not long since I measured the distance which some Plum roots had travelled from the main stem, and found it to be 46 feet. There are some orchards in Kent planted entirely with Plums, generally 6 by 7 yards apart, and they are very productive, notably one of Green Gages at Gillingham. A few years ago this piece was a perfect model of a fruit plantation. The trees were large for Gages, and bore abundantly in one year, making, I believe, more than £100 per acre. The trees are going off now, but there is an intermediate plant of other kinds coming up. The owner was offered £250 an acre for the fruit on the whole 28 acres, half of which was not nearly so valuable as the Green Gage part.\* Green Gages are so useful for domestic purposes that it will be a long time before we have too many of them.

The best sorts for bearing, and the kinds possessing the most useful qualities, are—

Early Rivers	Sandall's
Early Orleans	Prince Engelbert
Dauphine	Washington
Victoria	Mitchelson's
Belgian Purple	Autumn Beauty
Stone Wood	Diamond
Orleans	Green Gage
Gisborne's	Online Golden Gage
Goliath	Jefferson
Belle de Louvain	White Magnum Bonum
Fond's Seedling	Cinder Damsen
Prince of Wales	Prune Damsen

Lastly I come to the Apple, the most useful of all fruits

both to the rich and to the poor. For eleven months in the year this excellent fruit supplies our tables; but although cultivated largely in certain parts of Kent, we find, as a rule, that Cherries pay better where the soil is suitable. Apples will grow on almost any soil, even on stiff clays, if drained, but they are not so suitable for orchards, as the grass grows more rankly, and the sheep as a consequence do not feed so closely. Where the soil suits, the Apple makes a large head and requires as much room as any tree. I have heard of 500 bushels being grown on one acre. As for sorts their name is legion, but some of the best are—

DESSERT.	TIME OF RIPENING.	KITCHEN.	TIME OF RIPENING.
Joanneting (red and white) .....	July.	Kewwick Codlin.....	August.
Early Harvest .....	August.	Manx Codlin .....	August.
Early Julien .....	August.	Lord Suffolk.....	August.
Devonshire Quarrenden .....	August.	Gooseberry Apple.....	August.
Red Astrachan .....	August.	Stirling Castle .....	Aug. to Sept.
Early Strawberry .....	August.	New Hawthornden .....	Aug. to Nov.
Early Nonpareil .....	Sept. and Oct.	Lord Derby .....	September.
Ingestre Yellow .....	Sept. and Oct.	Cellini .....	October.
Mother Apple .....	October.	Waltham Abbey Seed- ling .....	Sept. and Oct.
Summer Golden Pippin .....	Sept. and Oct.	Gon's Pomona .....	October.
Sydhause Russet .....	Oct. to Feb.	Barthard's Seedling .....	October.
King of the Pippins .....	November.	Golden Noble .....	October.
Ribston Pippin .....	November.	Beauty of Kent .....	October.
Golden Pippin .....	November.	Bess Pool .....	November.
Ox's Golden Drop .....	Dec. to May.	Betty Gosson .....	Nov. to May.
Court-Pendu-Flat .....	Dec. to May.	Small's Admirable .....	November.
Ox's Orange Pippin .....	Dec. to Feb.	Dumelow's Seedling or Wellington .....	November.
Braddick's Nonpareil .....	Dec. to April.	Royal Somerset .....	Nov. to Jan.
Byson Wood Pippin .....	Dec. to April.	Brabant Bellefleur .....	Nov. to March.
Wheeler's Russet .....	Dec. to Feb.	Warner's King .....	Nov. to Jan.
Northern Spy .....	Dec. to April.	Kentish Fill Basket .....	Nov. to Jan.
Sturmer Pippin .....	Feb. to June.	Gascogne's Seedling .....	Nov. to Jan.
Winter Nonpareil .....	Feb. to March.	Tower of Giammi .....	Nov. to Feb.
Lodgemore Nonpareil .....	Feb. to June.	Blenheim Orange .....	Nov. to Jan.
Adams' Pearmain .....	February.	Mère de Ménage .....	December.
Golden Knob .....	Feb. to April.	Norfolk Beeding .....	Jan. to June.

I next come to fruit plantations which have standards or half-standards, and underfruit. The plan generally adopted is to plant the trees, which are more frequently half-standards, 22 feet by 16½ feet, with Gooseberries or Currants between them 5½ feet apart. The cost of the trees, bushes, and labour comes to about £20 per acre. In about three years the berries will begin to bear and to make some return. Trees grow faster and bear sooner in arable plantation than on grass. The cultivation assists very much, and of course the more the land is manured the greater will be the crop. Apples, Pears, and Plums suit this class of planting best. Large returns are made by the underfruit, especially if the plantations are near towns or railways, an acre of berries frequently realising from £20 to £30; indeed, a large grower near Maidstone informed me that he had made £100 per acre from one piece of Gooseberries; this was, of course, an exceptional price. The sorts most used are the Golden Drop, Whitesmith, Rifleman, Crown Bob, Lancashire Lads, Velvets, and Warrington. Black Currants also are now attracting much attention. They require a strong stiff soil. The sale of this fruit has increased much of late years; some say to make port wine, others for use as a dye; however, the fruit is one of the most wholesome we have, and makes an excellent preserve. The Baldwin's Black is a great improvement on the old sort, but I am not certain whether this and the Naples are the same. I have seen trees lately which have borne as much as half a sieve each, and one planter in Rainham told me that he had grown 250 bushels on 2 acres at three years old, and realising £118 less the expenses of picking and sale. In West Kent, especially on the ragstone, Filberts and Cob Nuts are more grown than berries. The soil exactly suits them, and they bear most abundantly. The Cob Nut is, however, fast taking the place of the old Filbert, being found much more productive and profitable. The Nut is larger, but not so well-flavoured as the Filbert; but it grows much quicker to bearing. I have seen some trees at Loose, near Maidstone, which grew 40 lbs. on a tree, and over £100 per acre was made of one particular acre. The trees are generally planted about 16 feet apart each way, and the pruning of them requires considerable skill and care. For this work the usual price ranges from 2d. to 3d. per tree.

Plantations used for Berries only.—These plants are generally intended to remain for a few years only, with a view to temporary profit. This plan is the best, as the upper fruit is raised while the under fruit is bearing. Gooseberries and Currants are generally placed 6 feet apart each way, making 1210 plants to the acre. The cost ranges from 8s. to 16s. per 100. Many growers (especially with Black Currants) now

\* There is also another orchard of 8 acres, all Plums, near here, the trees planted about 18 feet apart. This has realised by auction £25 per acre on an average of the last three years.

plant an intermediate bush, which is taken out again after five or six years. By this plan they obtain a better return at starting. It is now found much better to form the young Black Currant as a stock instead of a bush. This is done by not taking off any of the buds when the cuttings are struck. The plant in this way forms a better head and lasts many more years. In all kinds of plantation it is most essential to have a man who thoroughly understands pruning, as the amount of produce is more or less dependent upon the intelligence of the cutter. As a rule, the young gardeners of the present day do not attend sufficiently to the art of pruning. They ought to have proper training at the nurseries before they undertake such responsible work. My experience is that not one in ten (even among professed gardeners) thoroughly knows his business. For educational purposes I can recommend M. Du Breull's book on pruning as a good practical work.

The drawback to fruit plantations which are under cultivation is the great cost of labour in keeping them clean; for if roots and weeds are once allowed to gain the upper hand the expense of subduing them becomes enormous. As the fruit-picking season comes on labour gets scarce, and there is great difficulty in getting work done.

Our fruit plantations have all been dug well once over, many twice, and have had at the least four hoeings, yet I should have been very much ashamed if any of you had seen them last August.

In West Kent on the light soils and shingle both Raspberries and Strawberries are cultivated to an immense extent, and very profitably; but this is a class of fruit we have not time to discuss. I can only remark, as showing the progress of fruit cultivation, that in the space of about twenty years probably not less than one thousand acres of poor woodland about Farningham, the Crays, and Sittingbourne have been grubbed, and are now growing fruit of this description, or of the other kinds I have enumerated.

There is another kind of cultivation of dwarf fruit which, so far as profit is concerned, may be considered at present to be in a state of infancy, but which I believe will command great attention presently. I allude to the growing of the Apple on the Paradise or Doucin stock on bushes—the effect being the same as growing the Pear on the Quince, or the Cherry on the Mahaleb stock. The object is to avoid profuseness in growth, so that quicker results and greater bearing propensities may be obtained. Many of our amateur fruit-growers have already done much to assist and encourage this most interesting class of fruit-growing, and I believe, when well understood, we shall find the system to be very profitable. The great benefit is, that by this mode of culture anyone possessing even the smallest plot of ground can have a succession of fruit. These dwarf trees can be planted 3, 4, or 6 feet apart at first, and thinned as they grow too large; therefore any person having only 6 perches of land might have one hundred trees. Mr. Rivers in his useful work "On the Culture of Pyramid and Bush Fruit Trees" has so well described the treatment required for dwarf fruit, that I cannot do better than advise you to study his work. Our countrymen owe that gentleman, Dr. Hogg, Mr. Scott of Merriott, and many other propagators, their thanks for the great services they have rendered.

I must conclude my paper with a few remarks on old orchards and fruit plantations, because we must all have observed that many such are much neglected. It is no uncommon thing to see trees running into one another owing to the planting being too thick, or from profuse growth. Now a little thinning or shortening of the lateral branches will do great good. There should not be less space than 8 feet between the boughs of every tree, so that a ladder may be worked easily, and the sun and air let in; but large boughs (unless dead) should never be cut off if it can be avoided. It is often the custom to cut and thin out the inside of old Apple trees, but great injury is done by the practice after the trees have arrived at any age. A very good fruit-grower once remarked to me that he liked the interior of his Apple trees to be so thick that he could not see to shoot a partridge through them, and I quite agree with him, for we once had the greatest injury done to an old plantation of Apples by the clearing-out of the inside of the trees. The plantation had borne 3500 bushels in one year, and the next year my father was advised by the bailiff to have the trees trimmed out. The remarks of the man appeared reasonable enough. He urged that we could get no fruit inside but a few scrubby Apples, and that what went to support these

boughs would help the other parts of the tree. The work was allowed to be done, but the result was most disastrous, as nothing like the same quantity was ever grown again. I believe manuring never pays better than when bestowed on old plantations. The treatment appears to give fresh vigour and bearing power to old trees if they have any good wood left. It is not, however, always necessary to manure with dung, for feeding sheep with corn or oilcake answers much the same purpose. I end by advising everyone to have each tree looked to and examined early in the autumn, and never to allow an unproductive one to remain or be regrafted.

## THINGS NOT GENERALLY KNOWN.

### ACACIA.

I do not think it is generally known that there is no wood lasts so long for posts as Acacia. There is little or no sap, and it lasts underground far longer than Oak. If sown and transplanted and cut down from time to time like Ash, it grows very quickly from the root or stool, and makes very durable Scotch fencing. More persons ought to turn their attention to planting it in covers. It is not a tree that attains to a great age or size, as it quickly matures.—C. P. P.

LOUGHBOROUGH CHRYSANTHEMUM AND FRUIT SHOW.—A Committee of the leading horticulturists, with the Rev. J. Bird as President, has lately established a Chrysanthemum Society, and have just held their first Show, which was a very successful one. Notwithstanding the unfavourable season, this new Society has produced an excellent show of this favourite autumn flower; and, judging from the spirit displayed, Loughborough will soon become as eminent for the growth of the Chrysanthemum as it is for the growth of roots and vegetables. Very fine-trained specimens of both large and small varieties were staged, and the cut blooms were such as to call forth remarks of astonishment. The show of winter fruit was particularly good, and every prize was sharply contested.

## NOTES AND GLEANINGS.

A GENERAL Meeting of the Fellows of the Royal Horticultural Society will be held at South Kensington on Thursday, December 9th, at three o'clock P.M., to receive from the Council an explanation of the Scheme of Privileges for 1876, and to give an opportunity to the Fellows of stating their opinions on its details. The attendance of the Fellows on this important occasion is most desirable.

— MESSRS. CARTER & Co. of Holborn have offered a series of prizes for vegetables at the Shows of the Royal Horticultural Society in 1876, amounting in all to £78.

— THE next dinner of the HORTICULTURAL CLUB will be held at the Club House, 8, Adelphi Terrace, on Wednesday, December 1st, at 6.15. Members have the privilege of introducing a friend. It is particularly requested that instruction be given to the Secretary by the 29th inst., as much inconvenience was occasioned on the last occasion. Double the number of members expected were present, and although the resources of the Club are considerable, it is not easy to alter tables on so short a notice. A card to the Secretary would be sufficient.

— WE are informed that the ROCKWORK at Sandringham, Dunorlan, Battersea Park, and Osmaston, which have been praised in our columns, were all erected by Mr. Pulham of the Stoneworks at Broxbourne.

— OUR foreign imports of CHESTNUTS have been declining; they have ranged from 65,000 bushels to 25,000 bushels. Chestnut flour, so unknown to us in England (although there is no reason why this should be), is the staple food of many Italian peasants, with which they make their polenta, preferring it to Maize, as being more nutritious. The cost per head for this kind of food is from 8d. to 4d. per day.—(Food and Fuel Reformer.)

## GRUBS DESTROYING VEGETABLES.

SOME years ago I could not, and had not, grown any tap-rooted vegetables fit to cook, when one day to a gardener who came from a distance to see my Carnations I told the difficulty I was in. He said, "At the back end of the year put on

a thick layer of spent gas lime, and in spring dig it well under, and you will have all the vegetables you can wish." The result was, we had more than we could use and the finest in the country round. I allude to Cauliflowers, Cabbages, Carrots, Onions, Beets, Parsnips, &c., and some of which were finer than I have ever seen since. I left the house in the following year, but the succeeding tenant corroborated some years after what I have now written.—J. C.

### KEEPING GRAPES FRESH.

THE accompanying sketch (fig. 98) is of a tin tube 2 inches diameter at the top and about 8 inches deep, which will hold four bunches of Grapes; the tube to be filled with water and a few pieces of charcoal. The top of the tube is to be fastened in the centre with copper wire; the ends of the wire twisted will form a loop to hang the tube from the edge of a shelf or any other method, so that the Grapes may not touch the wall.

I use small bottles for a single bunch, hung on iron rods with small hooks. The four divisions at the top of the tube keep the bunches at equal distances from each other. The bunches to be cut with 7 or 8 inches of wood, so that they may not slip out of the tube.  
—JAMES CROSS, 15, Devonshire Buildings, Bath.

**SEASHORE WEEDS ON GARDEN WALKS.**—Mr. Robson, on page 447, makes inquiries for something that will destroy seashore weeds on garden walks. If he can conveniently procure gas water I think it will destroy the weeds thoroughly. I always use it here, and I find it more powerful and lasting in its effects as a weed-destroyer than salt.—M. H., Coleorton.

### OLLA PODRIDA—A CONTINENTAL TOUR.—No. 7.

I HAD no idea when I began an account of our short tour on the Continent that it would occupy so much space in the columns of your Journal, and must, in this my concluding paper, apologise to your readers for having been so long in finishing these somewhat desultory remarks, which by the pressure of other matters I have not been able to conclude before.

It is my intention now to compare (even though, as Mrs. Malaprop said, "comparisons are odorous") Battersea Park with other parks and gardens abroad. Wishing, while other parks were fresh in my memory, to take a stroll through Battersea Park, I did so a few days after my return to London, and was much pleased with what I then saw. I especially noted as being attractive some varieties of the Fuchsia with ornamental foliage, such as Meteor, Pillar of Gold, &c., which combine both high-coloured foliage and graceful flowers. Mr. Rogers tries new varieties of Pelargoniums, Lobelias, &c., every year, but does not give them a prominent position till well tested. Among the Lobelias on trial were some new varieties from Mr. Henderson:—Charming, Unique, and Defiance of the pumila section—the latter is a lilac somewhat similar to Omen—and Brilliant is a good bright blue of the speciosa kind; but none of the Lobelias seemed to be better than a selected strain of pumila raised by Mr. Rogers himself, called, I think, maxima

assura. Planted alongside one of the drives were some trial plants of some of Mr. Pearson's best Pelargoniums. Mr. Rogers kindly put himself at my disposal, and met me near the lodge at the Battersea Road station end, and drove me round the principal drives, while we left the carriage from time to time to see more closely the more interesting part of the parks and gardens. I am not going now at this distance of time, having only made a few cursory notes, to attempt a full description of each bed and each design. I only wish to give my general impression of the park.

Now, first of all, I may observe that in point of position as well as in the general outline and landscape the park has had much to contend with, and much credit is due to those land-

scape gardeners, especially Mr. Gibson, who have so well overcome these natural difficulties.

A flat piece of ground with, I believe, hardly a rise or irregularity in it anywhere, lying close along the river, where it had to contend with spring frosts and damp, within reach, too, of the smokes and fogs of London—these, all gardeners will admit, are certainly difficulties of no slight nature, and yet the result is such that there are some portions, especially the subtropical and more highly-kept parts, which give as much or even more satisfaction to me than almost any gardens I know. This result has been accomplished by judicious planting, by careful study of the general outlines and contours of shrubberies and beds, and in the disposal of the proper trees and shrubs in the right places. The soil which was taken out to form the lake has been used to make raised ground for planting on; and the subtropical garden, which is one of the

Fig. 98.

most ornamental and successful features of the park, is protected by the manner in which these raised banks, carefully planted, protect the more tender plants from winds and weather. I do not say that the park is perfect, but the care with which it is kept, and the variety of plants and shrubs which are to be found, and the advantage which is taken of the different kinds of plants, hardy, alpine, herbaceous, bedding, subtropical, &c., each to produce their own effect in their own way, is an agreeable contrast to the want of care and attention in foreign parks and gardens. I do not wish to repeat my former remarks, but in the parks and gardens abroad too much seems to be left to the climate, and too little to art and cultivation.

I do not like at Battersea the attempt at imitating natural rocks with stucco and plaster. No one expects rocks there, and no one is deceived, and to the end of the chapter it will remain a mere mass of concrete, on which Ferns will not grow, and even Ivy will not cling, nor even, I believe, Ampelopsis and other plants. It would have been far better, I think, to have made a rockwork of stones and soil disposed irregularly, so as to have given different sites and aspects for Ferns, alpinas, &c., and to have studied the habits and requirements of the plants, than to have stirred up the wonder and admiration of the Cockneys by sham rocks in concrete. I believe, however, the intention was good, and I do not wish to be over-critical. The ornamental water, too, is still left too flat in its outline, though the general contour is good.

I am going to have, too, my growl about pin cushion beds and carpet bedding; and here I do not want my remarks to apply to Battersea Park only, where I do not think too much

space has been devoted to it, but to the general rage for lawn millinery and formal geometrical patterns entirely depending on foliage plants clipped by rule and measure, and constantly pinched to preserve a uniform and regular shape. No doubt a person may say, You mow your lawn to make a green carpet; you tie up plants to prevent them straggling, and art is always trying to control nature. This is true to a certain extent, and I do not wish to see this geometrical carpet bedding entirely excluded, but only judiciously limited. I remember I was once accused of wanting to see miles of scarlet Geraniums and yellow Calceolarias because I endeavoured to fight the battle of bedding plants, and affirmed that the system of planting beds with the most durable and perpetual-blooming half-hardy plants had done more than anything else to spread and to foster the love of gardening; but I should be very sorry to see flowering plants pushed on one side to make way for foliage plants of dwarf growth, planted merely for geometrical effect, and which do not vary, for this is one of their great demerits, in my mind, that there is such a sameness and monotony. Once go and see a geometrical garden well clipped and cared for, and you will see it just the same every day of the year after, I mean when it has once reached its best. It may vary a little between being a little less clipped or more clipped; sometimes the Golden Pyrethrum may have grown a little too rampant, or the Alternantheras, and Leucophytos were bedded too much with the rain, but the general monotonous effect is still the same. I know if persons will use the same kind of Geranium, or Verbena, or Calceolaria throughout a whole garden, and reckon the value of a bedded garden by the number of Mrs. Pollock or Lady Cullum, that the same monotonous effect may be produced; but no amount of foliage plants, however carefully tended, can, in my mind, make up for the want of proper varieties of flowering bedding plants judiciously selected. No doubt days and weeks of rainy weather are trying to the lover of flowers; but, then, what gardening pleasures are comparable to a carefully selected set of flowering plants when the weather is favourable? I do not wish, as I said in the beginning, to find fault with Battersea Park in particular on this score because these geometrical beds are there only introduced in their place, and not made the general *pièce de résistance*. The subtropical part, where advantage has been taken of both form and flower, and where plants are encouraged to develop and show their true nature, is what makes Battersea Park so really attractive. I was too early to see the real effect, but having seen it in other years when more fully developed I could judge what the ultimate effect would be.

I will not attempt at any length to describe the various arrangements. I was very glad, amongst other plants, to see the different Begonias, with their graceful scarlet blossoms, promising so well; the different kinds of Erythrina mixed with Abutilon; Grevillea robusta, and other foliaged plants, presented an ornamental contrast. The Jacaranda promised, too, to be a useful plant; and amongst other commoner plants, the Cineraria maritima compacta was effectively employed.

I will now glance at Mr. Pearson's Pelargoniums. These were friends (I was going to say old friends of mine, but that would not be strictly correct), but many of them were known to me. Among the best were Ethel and Miss Annie Orton—no relation, I hope, to the claimant, and certainly not so great an impostor—Brutus and Pirate, dark crimson; Sir H. S. Stanhope, a fine deep red; and Lady Stanhope, of the colour of Lucius or Excellent; Charles Smith, one of the very best of the new dark crimsons of the stamp of Edward Sutton or General Outram, and many others which I need not particularise. There were beds of Mrs. Turner and Mrs. Gibbons of the lilac-pink section which were much alike, and when so many good new sorts are now sent out it is difficult, of course, to make a selection and to decide which of the newer ones to propagate. One thing I am very well assured of—that the old favourites, such as Tom Thumb, Stella, &c., will gradually have to give way.

Cannas are extensively grown, and make an especial feature in many of the groups, but care must be taken lest they be used too much and in too great masses. The Cannabis gigantea, which was only just being planted out, is one of the most effective of all the subtropical plants, and Mr. Rogers told me he had had more inquiries regarding it than almost any other plant. Even here in the far north plants of it have grown from 9 to 10 feet high on a warm border, and 4 to 5 feet through.

Space warns me that I must conclude, and I can only add that such gardens and parks as Battersea, Regent's Park,

Crystal Palace, &c., conclusively prove to me that English gardeners are in advance of their brethren across the water.—O. P. FRACK.

### AUTUMN ROOT SHOWS.

ALTHOUGH not in the immediate province of a horticultural publication, yet farming is of kin to gardening, and in recognition of the enterprise of the promoters of the Shows and the cultural skill of the exhibitors of the roots, we will notice briefly the two great Exhibitions which have recently been held. Taking them in the order of priority of date, the Exhibition of Messrs. CARTER & Co. was held in the Agricultural Hall, Islington, on the 18th inst. The liberal prizes offered, amounting in the aggregate to nearly £250 including silver cups, brought out a much larger display than usual. The roots—of which there were thousands, in fact tons, occupied the entire north gallery of the Hall and also the west end of the building—were not more remarkable for the size of the specimens than for the distinct features of the different kinds, which instanced in a striking manner the purity of the stocks.

It is not the mere size of roots that we especially admire, neither perhaps do the cattle, nor have on this occasion the Judges; and we can imagine that in the great competition for the premier prize in the class for the "Imperial Hardy Swede" that some disappointment would follow, for the cup was awarded to Mr. Weevil for comparatively small roots but of unsurpassable quality. The hard iron appearance of this variety is worthy of its name, or the name is worthy of it, and it is evidently highly popular with agriculturists. The long red Mangold Wurtzels were enormous, but Mr. Ensor won with not the largest but the brightest and best. Prizes, however, were given for the "heaviest" in some of the classes, and one lot of three roots weighed 125 lbs. The greatest and best show of Globe Mangolds consisted of "The Warden," and Mrs. Norton had the premier prize. The exhibits in this class were specially admired for their uniform high quality. Turnips—white, purple, green, and yellow—were exhibited in great perfection, as were Kohl Rabi, Farnips, Carrots, Beet, Onions, and Potatoes, the collections of the latter from Mr. McKinlay, Mr. Cholmondeley, and Mr. Lumsden being of high excellence.

The best products of eight sewage farms were staged, and amongst the exhibitors who did not compete were Her Majesty the Queen and their Royal Highnesses the Prince of Wales and Prince Christian. The Exhibition was highly creditable to the great Holborn firm and their customers, and the awards showed great discrimination on the part of the Judges.

At one end of the Hall a collection of roots and vegetables of splendid colour and quality was exhibited as having been grown on poor soil by the aid of Amies' chemical manures.

MESSRS. SUTTON & SONS, READING.—I have now for some years chronicled the character of this grand root show, which every year seems like a schoolboy to be outgrowing its clothes. The Show was held on Saturday last, and as usual exhibitors of all grades were there, from the small tenant farmer up to Her Most Gracious Majesty the Queen. The Dukes of Portland and Sutherland; the Marquises of Anglesey and Bristol; Earls of Warwick, Harrington; Calthorpe and Camoys; while baronets and members of Parliament by the dozen entered the lists. As to the general character of the Show, one may say that there was a larger number of really excellent roots in the various exhibits than on any former occasion, while the roots of Sutton's Yellow Intermediate Mangold seemed to me to be best and prettiest portion of the farm produce. A few of the weights may not be uninteresting. In Suttons' Berkshire Prize Yellow Globe Mangold the heaviest lots weighed 299 lbs. (twelve roots). In Suttons' Mammoth Long Red the heaviest twelve weighed 440 lbs. Of that beautiful and valuable sort the Yellow Golden Tankard, twelve weighed 248 lbs.; but Suttons' Champion Swede outtopped all in the number of entries—120; the heaviest eighteen, from Mr. Allsop, weighing 860 lbs.

In the horticultural department of the Show some exceedingly beautiful collections of vegetables were shown; Mr. Walter, M.P. of Bearwood taking first honours. The specimens exhibited were of the highest order of excellence, not overgrown, but really good and eatable. Amongst them were Suttons' King of the Cauliflowers, with compact heads of snowy whiteness; Suttons' Improved Red Beet, an excellent kind; Suttons' Golden Globe Savoy, a beautiful-looking vegetable of a bright golden-yellow colour; and Suttons' Improved Reading Onion. The Leeks, too, were of great excellence, while Sulham Prize Pink Celery is one of the very best of the many varieties with which our seed lists are filled; and of all Turnips certainly the very prettiest is Suttons' Snowball. The second prize was won by Major Thoyte, and comprised many good specimens. The principal prize for Potatoes was also won by Mr. Walter. The Messrs. Sutton themselves exhibited—of course not for competition—a very complete collection of Potatoes, including some tubers of a new seedling Kidney not yet named, which promises to be a

great acquisition, being an abundant bearer and of excellent quality.

This, the twenty-sixth show of the series, has far exceeded both in quality and quantity all its predecessors.—*La Roi CAROTTE.*

### STRAWBERRY CULTURE.

PROFESSIONAL gardeners are familiar with the course of treatment; I shall, therefore, address myself to the amateur.

In taking runners select the second runner; it makes by far the best fruiting crown. Prepare as many 2-inch pots as there are plants required, placing a small potsherd over the hole. Sink them into the bed under the runners that have been selected. Fill the pots with the soil taken from the hole where they are to be sunk; press firmly the soil in the pot. Secure every plant either by a pebble, or, what is better, a short hooked peg made from an old birch broom. Keep the soil very moist, and do not detach the runners from the parent plants until they have well filled the pots with roots.

Want of space is one of the reasons why the Strawberry bed is not renewed at its proper season, the first week in July being a good time to make a new plantation. If planted then the plants will make good crowns before the bad weather sets in; but in July the small garden is well stocked with other productions, so that the Strawberry is neglected till such time that there is space. This neglect can be avoided by the following plan: When a new plantation is required prepare ground the size of the required bed by deep trenching and well manuring. If the soil is light well-decayed cow manure is by far the best to use, and plenty of this should be placed in the bottom of the trench, and some gradually worked through to within 2 inches of the surface. The bed should be in the most open part of the garden. It should be prepared in February, and in the following March sown with Onions in drills, and in July the Onions should be bent inwards, row to row, to admit of the Strawberries being planted in rows between them. For a small garden 20 inches asunder and 15 inches from plant to plant are good distances.

By this plan there can be a crop of Onions and a good plantation of Strawberries. No bed should continue longer than four years if in heavy soil; or if in light soil, than three years.

If there is space I should form beds for succession of the following:—

*For Early Use.*—1, Black Prince; 2, Keen's Seedling; 3, President; 4, Sir Charles Napier.

*For Succession.*—5, Dr. Hogg; 6, Sir J. Paxton; 7, Comte de Paris; 8, Eleanor.

*For Late Use.*—9, Sir Harry; 10, Frogmore Late Pine; 11, Cockscumb; 12, Red and White Alpine.

The soil will only require to be stirred deeply once during the continuance of the plantation, and then do not use the spade; a mere hoeing is all that is required to keep the weeds under. If the ground is stirred at all it should be immediately after the crop has been perfected. The plants should be mulched in November, and gently forked-up again in February. In March put some clean straw between the rows, and also between the plants, to keep the fruit from being soiled. Barley straw is the best.—*J. H., Gardener to Lady G. Legge.*

### THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 6.

LONDON when it first began to extend beyond the city limits pushed northwards. Like the stem of a plant, it grew in an upward direction chiefly; not for a good while did it strike its roots southwards, and send off to the east and west those gigantic runners we now see, the one so remarkable for splendour, the other for squalidity. For convenience sake the citizens cultivated ground lying towards the north for the supply of fruit and vegetables to the metropolis, and thus it is that we have scarcely a record until after the revolution of any nurseries situate in those districts, where they sprung-up so numerously during the Georgian era. Queen Elizabeth's proclamation, published July 7th, 1580, forbidding the continuance of the building of houses within certain limits specified, shows how London had enlarged itself then; and I dare say the poet Daniel, who had a garden-house in Old Street, near the Charterhouse just referred to, felt some satisfaction in a measure which might prevent his being interfered with by any meddling builder. As a part of the land he held bore in Elizabeth's reign the title of "The Rose Ground," Daniel may have been one of the pioneers in the course of Rose cultivation. It would be something to his credit if he could be

proved to have been a good gardener, since he was assuredly quite "small potatoes" as a poet. Old Street was originally Eld Street, possibly called after an individual. The nursery continued to be famous for many years, Oldys even going so far as to assert that it yielded not the choicest fruits in London, but the choicest in all England. That was in the reign of James I., the occupant at that time being a John Milton. In Old Street Road was the well or spring of St. Agnes-le-Clerc, deriving its name from the clearness and briskness of the water; and between St. Agnes-le-Clerc and Hoxton was an enclosed garden belonging to Charles Stuart, King of England, and sold with other Crown lands by the Commonwealth. All around it were open fields, and seemingly for pasture. And here it may be as well to make a statement which may serve to prevent a ludicrous misapprehension. The "nursery" in Moorfields was not a nursery for plants, but a training school for embryo actors, originated in the reign of Charles II. by contrivance of Von Killegrew, and here common plays were acted. Singularly enough there was a similar one in Hatton Garden, managed by Davenant. In neither case did the experiment turn out satisfactorily.

Pentonville is contiguous to Clerkenwell, almost a part of it, and here some gardens and orchards are named by old writers; indeed, it was all open land until a comparatively recent date, the only historic house being the White Conduit House. Owen Row and Street occupy the site of a large field called the Hermitage Field, cultivated by one of these eccentrics to whom I have alluded, who had most probably nothing more than a shed or shanty to live in. I presume this is the same person mentioned by a more modern author as the occupier of a plot of ground in the rear of Myddleton Place. Perhaps he had to change his location through some interference with his gardening projects. Not far from this spot there also lodged for awhile Charles Lamb, whose letter to B. Barton lets us know the fact that early in this century there was a promising nursery garden at the back of Colebrooke Row, close to the New River; and the amiable Charles, though no gardener, was delighted therewith, and declares that "the Vines, Pears, Strawberries, Parsnips, Leeks, Carrots, and Cabbages would gladden the heart of old Aesculus." This is now the site of several streets between the City Road and High Street, Islington. Islington, however, though not to appearance at all unpromising for garden cultivation in its soil and position, was principally devoted to pasturage while it was rural.

There can be no doubt that an impediment in the way of the formation of market gardens in the district was the vehement opposition made by the Londoners to the enclosure of sundry fields which they considered were lawfully theirs to disport in. It was hardly to be expected that gardeners would plant and sow on land which was unfenced and liable to be shot over, or marched upon, by the train bands and volunteers. In the reign of Henry VIII. there was a riot because the inhabitants of Islington, Hoxton, and Shoreditch had enclosed the fields with hedges and ditches, also they unceremoniously turned off all intruders, young and old alike. A party of citizens went out with the cry, "Shovels and Spades!" and having torn-up the hedges they filled in the ditches! They were too numerous to receive punishment. Again, in the eighteenth century the Artillery Company in a determinate manner opposed attempts at enclosure, and on August 12th, 1784, the regiment pulled down a great portion of a fence with which Mr. Samuel Pitt had surrounded land planted as gardens—conduct, I should say, rather unreasonable. So old Islington, instead of becoming horticulturally famous, was renowned for its cheese and custards, there being large grass farms in the hands of a few proprietors. The chronicler of Islington brags about their ability in the art of haymaking, but it seems the cowkeepers did not rely upon hay only as food for their cattle; they brought to Islington from a considerable distance quantities of Turnips and Potatoes at some cost. This they must have done, I suppose, at a time when they might at least have grown for themselves such vegetables as these without risk.—C.

### EARLY WRITERS ON ENGLISH GARDENING.

No. 2.

CHARLES COTTON.

THERE are some men who to have as friends is a guarantee that you are worthy: such a man was Isaac Walton, of whom it was well said by Ashmole, the historian and his contemporary, "He was a man well known and as well beloved of all good

men." Walton thus concluded one of his letters, "Though I be more than a hundred miles from you and in the eighty-third year of my age, yet I will forget both, and next month begin a pilgrimage to beg your pardon, for I would die in your favour, and till then will live your most affectionate father and friend." That letter was addressed to "My most honoured friend Charles Cotton, Esq." Walton calls himself Cotton's "father," in accordance with the prevailing custom with the teachers of other arts and sciences to speak of and to address their pupils as "sons." Astrologers, alchemists, and even poets adopted this term of kindness, for Ben Jonson made many such adoptions from among his friends; nor was the practice of recent origin, for in our translation of the Bible "the sons of the prophets" is the designation given to their disciples.

Cotton was born of honourable parentage on the 26th of April, 1660, at Ovingdean, close to Lewes in Sussex; but he had the worst of inheritances—the position of a gentleman with an encumbered estate and no profession. He had the best of substitutes, a liberal education. He was a member of Cambridge University, and he there became master of modern as well as of ancient languages. These were his sustainers in times of need—times too frequently recurring; so that he had to write, not of themes he preferred, but of those which suited the public taste. He complains in one of his prefaces that that taste in all things was "Frenchified," and the poetry of the period was not an exception. His poems were sufficiently impure to be praised by Sir John Suckling. Others of his popular works are irreproachable, and one of them, a translation of Montaigne's *Essays*, is still unsurpassed; but it is by his second part of "The Complete Angler" that he will be ever most remembered.

As a member of society he was justly highly esteemed. He was twice married, and by more than one contemporary he has been praised for his cheerful hospitality, his superior conversational power, and moral rectitude. Although obliged to be much in society, yet the quiet amusement of angling and the cultivation of his garden were his favourite occupations, and we are assured that he wrote from his heart's dictate these lines:—

"Dear Solitude, the soul's best friend,  
That man acquainted with himself does make,  
And all his Maker's wonders to intend:  
With thee I here converse at will,  
And would be glad to do so still,  
For it is thou alone that keep'st the soul awake."

In the State Papers there are several documents relative to Charles Cotton, chiefly concerning duels; but one shows that in 1667 a captain's commission in a foot regiment was given to him, and hence the armour he wore as represented in the portrait. He served in Ireland, and here probably met with his second wife, the Dowager Countess of Ardglass, and her jointure, £1500 a-year, was secured from his creditors. His house at Beristord, on the banks of the Dove in Derbyshire, was the frequent resort of Isaac Walton for the sake of its trout-fishing. There he built a fishing house still remaining. He entitled it "*Piscatoribus sacrum*," and had inscribed Walton's and his own initials in united cyphers over the door. His Derbyshire residence furnished him with authentic information for composing the only one of the publications which need notice before proceeding to that which entitles him to a

place in these sketches. It is entitled "The Wonders of the Peaks." In it he descants on the beauties of Chatsworth.

"This palace, with wild prospects girded round,  
Placed in the middle of a falling ground;  
On the south side the stately gardens lie,  
Where the scorn'd Peaks rivals proud Italy."

The description, however, is very meagre, and the real details then were not even approaching to the present excellences. The poet speaks in wonder of a fountain that spouted water "90 foot high," where now is that "Emperor" fountain which ejects the water to a height of 240 feet, which is 38 feet higher than the London monument on Fish Street Hill.

Being fond of gardening, and as the taste for it was rapidly increasing, it was to be expected that he would write upon its practice—the booksellers would readily purchase his production, and consequently in 1675 appeared his "*Planter's Manual*."

We need only refer to Sir Henry Wotton's writings for evidence that gardening in all its branches, and among all classes, was being pursued ardently, and that it was practised judiciously we learn from the contemporary writings of Evelyn, Rea, Worlidge, Cooke, Meager, and others.

The full title of Cotton's volume is "*The Planter's Manual*, being instructions for the raising, planting, and cultivating all sorts of fruit trees, whether stone fruits or pepin fruits, with their natures and seasons. Very useful for such as are curious in planting and grafting. By Charles Cotton, Esq." 1675. It is a small duodecimo of 139 pages, but throughout is evidently founded on practice. In the preface he warns his readers that superior fruits, especially in the northern parts, require a brick wall. He defines as he writes the terms employed:—"Espallier, a hedgerow of fruit trees against a latticed pale or stakes. Contrespallier, a hedge of fruit trees against a wall in the open air." The *Pomme de Paradis*, he states, was "a sweet Apple that comes of a Pearmain grafted upon a Quince." His enumeration of the requirements for success are a good soil, quincunx order of planting, not planting deep, not to prune at the time of planting, not to hoe deep but to break the crust frequently

in the summer, to plant in October. He gives good directions for pruning and training; but instead of nailing preferred sheepshanks fixed in the wall in quincunx order, 5 inches apart and projecting an inch, to which to tie the shoots. His directions for grafting and inoculating are unobjectionable, and he concludes with lists of fruits, all French. Among Plums he names "*L'ale vert*," is this our Green Gage?

Cotton seems to have died as he had lived, in pecuniary difficulties, for administration to his effects was granted on the 12th of September, 1687, "to Elizabeth Bludworth, his principal creditrix." In that grant he is described as living in the parish of St. James's, Westminster. Relying on that record I proceeded to the church of St. James's, Piccadilly, in the hope of finding there some memorial. Let those who have not seen the interior of this, Sir Christopher Wren's masterpiece, do so. The object he had in view was to enable two thousand people to hear distinctly and see the clergyman; he effected that object, and I think he was justified in saying, "It is beautiful, convenient, and of the cheapest form." But I was not less struck with the number of celebrated men who are there entombed, and whose memorial tablets are on the walls and pillars. The two Vandereldes, Dahl, and Huysman,

*Charles Cotton.*

Fig. 39.



painters; Arbuthnot, the friend of Pope, Akenside, author of the "Pleasures of Imagination," and the celebrated Sydenham, physicians; Gilray the caricaturist; and Dodaleys, the eminent booksellers, are only a few of those I noted. But there is no marble monument to the memory of the friend of Isaac Walton, so I obtained access to the parish register of burials, and there found this entry, "1686, February 16, Charles Cotton, M."—that is, a married man; and as the year then commenced in March, we should now record the burial as being in 1687.

### JULES D'AIROLLES PEAR.

I AM obliged by your information respecting the identity of Jules d'Airolles with Liron d'Airolles, of which I now send you a section of a rather small fruit selected as exhibiting better than a larger specimen the type of the kind. The fruit is large, with a smooth skin, bright green marked with bright red on the sun side, the bright green changing to greenish yellow as it ripens, the bright red being retained and height-

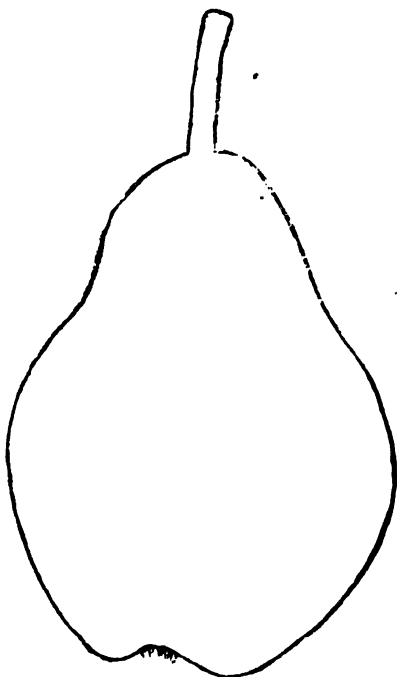


Fig. 100.

ened as the ground colour changes. Eye partially open, rather deeply depressed. Stalk about three-quarters of an inch long, rather stout, inserted in a rather deep cavity. Flesh white, delicate, melting, very juicy, with a rich vinous flavour and slight aroma. The tree appears hardy, vigorous, and a good bearer. I have it against an east wall, upright-trained, and on the Pear stock. The first fruits this year (1875) were ripe October 29th, and the last fruit used—it being over-ripe—November 18th. It is equal to—I think surpasses—Napoleon, which it much resembles.

Have any of your correspondents noticed the difference in the size and quality of Pears on the Pear stock over those on the Quince in a high cold situation? The difference is with me marked, and becomes more so every year; those on the Quince, especially Louise Bonne of Jersey, Bergamotte Espreux, Beurré d'Arenberg, Alexandre Bivort, Beurré d'Anjou, and Zéphirin Grégoire, though masses of fertility, have the fruit so much spotted and cracked as to be worthless, whilst the same kinds on the Pear stock exhibit none of those defects. The cracking and spotting have been attributed to cold cutting winds whilst the fruit was young; but I am inclined to think that whilst those on the Pear stock have not the crack-and-spot tendency, that the Quince being a more tender subject than the Pear (a native), the latter is not checked in its growth so readily as the Quince in a cold dull period, and the fruit does not become skin-bound as a staying of the feeding fluid would cause, with consequent splitting when a return to mild weather causes the flow of sap to be

free. The Quince is a native of South Europe, and must reach its limit of hardiness, and with that its usefulness as a stock in northern latitudes. I know Pears on the Quince stock attain in some places in Scotland great excellence, but some parts of the classic land are more favourable for fruit culture than many high, bleak, exposed situations in England.—G. ABBEY.

### NOTES ON VILLA AND SUBURBAN GARDENING.

THE little forcing house, whether for Vines alone or for forcing plants into flower as well, ought now to command attention. In many, if not most, suburban gardens there are many tender plants, such as Ferns, Coleuses, Begonias, &c., which have been grown during the summer in the greenhouse, and which, for their usefulness to be prolonged, require a moderate degree of heat, and in the absence of a separate plant stove it is necessary to make use of a vinery in which many plants can be grown, and generally a fair crop of Grapes also.

In the first place, the Vines must be pruned at once and cleansed of all loose bark, but no more than will part easily from the rods. Dress the Vines over with a composition of 8 ozs. of powdered sulphur, 2 ozs. of Gishurst compound dissolved in warm water, adding one quart of juice from tobacco paper, to be mixed with clay and soot sufficient to make it of the thickness of paint. Apply it carefully with a small brush, taking care to reach the bottom of every crevice, and thoroughly cover all the wood and especially round the spurs where the insects mostly secrete themselves. When the Vines are dry suspend them to the wires about half the way up the roof, letting the upper part of the Vines hang down; this assists them to break more evenly—that is, the uppermost buds will not be so much in advance of the lower buds, which will then become stronger. The house itself must be well cleaned by limewashing all brick-work, and washing, if not painting, the woodwork.

If there is a bed or pit in the centre to be filled with material for bottom heat let it also be done, whether with tan or leaves, or a mixture of dung and leaves; while the heat is rising it will be well to prepare the plants which are to occupy the places. These usually consist of Azaleas, which must be tied to their proper shape and the pots cleaned. Lilacs and Ghent Azaleas should be potted, if not already done, and those already done will no doubt need top-dressing with a similar mixture to that in which they were potted, but not unless the pots are full of roots; such plants rarely need potting every year they are forced. Then there are the Deutzias, gracilis and flore-pleno, which require similar treatment. Next come different sorts of Roses, which ought to be one-year-potted plants to do well; the same may be said of Weigela roses, Forsythia viridissima, and Dielytra spectabilis, which are all excellent forcing plants. Rhododendrons, too, must not be omitted, nor Camellias for advancement. None of the above plants need hard forcing—in fact it is injurious to them, for the colour will be pale and the growth much weakened, and the supply of flowers shortened. Then there are different kinds of Dutch bulbs; those that were first potted must be first taken, using the common single Hyacinths and Tulips first. A few of the forwardest Cinerarias should be introduced, as well as a few pots of Lily of the Valley and Solomon's Seal, but do not introduce Heaths and Epacris into such a place. The above are all common plants such as an amateur need not be afraid to grow, and which, if the following conditions are attended to, may generally be expected to do well.

Plunge the deciduous plants named above into the pit when the bottom heat has subsided down to about 65°, or not more than 70°, and let the top heat be very mild, say not more than 50° at first; this will suit both the Vines and plants and will assist the roots to make progress in advance of the shoots—a point always to be studied in successful forcing, because then the growth is stronger, and consequently the flowers are larger and more plentiful. The deciduous plants will need but little water until there is some growth upon the bare shoots, increasing the quantity as growth proceeds; but Rhododendrons and other plants with foliage must have a regular supply. Atmospheric moisture must be also provided; if dung and leaves are used for bottom heat there will be nearly moisture sufficient for a week or two on account of steam being given off; but if dry heating is used, a syringing overhead once or twice a-day according to the weather will be necessary.

Airing is another important matter. If I say that the heat not to exceed 45° or 50° by night, and be kept at 55° or not above 60° in the day with sun heat, air must be given to keep it at that, excepting in the afternoon, when if the house is closed early, say by two or three o'clock, it does not matter if the heat increases to 70°, which will be beneficial to the plants.

There must be no neglect in watching for the green fly, for the genial atmosphere produced favours their growth and increase, and on the young shoots especially they soon do irreparable injury. If the house instead of having bottom heat has only a stage on which to stand the pots, there must be greater care

still not to increase the heat too much at first, and when syringing is going on the pots should be moistened as well as the plants. Again, under such circumstances special attention is needed as to watering, because a plant not plunged but merely suspended, as it were, on a stage with both air and heat circulating freely about it, the ball of soil naturally becomes dry much sooner, and will need water oftener and in larger quantities than if the pot is not exposed to the air.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### HARDY FRUIT GARDEN.

WEATHER permitting we shall proceed with the work of pruning and nailing the wall trees. The greater part of such work is done during the summer months, but when the young growths are covered with leaves they are not so easily laid in straight, and it is also difficult to resist the temptation of laying in more young wood than is actually required. In either case we begin to go over the trees and complete the work when they are at rest. These are either "cordons" or what gardeners call fan-trained trees. Pear and Apple trees are usually trained on the cordon system; for what in ordinary parlance is termed horizontal training is cordon training after all.

Amateurs usually make the greatest mistakes in training their wall trees, the art of training such trees not being understood by those who have not been brought up to gardening as a profession; they do not lay the branches in straight, and they lay them in too thickly, nor do they feel inclined to spur-back the foreright growths so closely as they ought, and the trees become furnished with useless spurs, which make them unsightly. There is also considerable difference in the soil for furnishing the trees with fruitful or unfruitful wood. In clayey soils the tendency of the trees is to become furnished with fruitful spurs to such an extent that the trees become weak and exhausted from the want of counteracting leaf-growth. In soils of the opposite class leaf-growth is too freely produced until the trees become old; but if the knife is too freely used on the branches without a corresponding check being given to the roots a thicket of young growths will be produced and little or no fruit. A case just occurs to me as an example of what I mean; it is a Jargonelle Pear tree, perhaps nine or ten years old, in an amateur's garden. Through injudicious training and pruning it has not even blossomed, but it is now by summer pruning alone furnished with fruit buds which will in due time gladden their owner's heart.

The easiest method of training for the inexperienced is the cordon; if there is any difficulty it is in the formation of the groundwork of the trees. Shoots will not always start from the right place, but it is always possible to train the growths where they ought to be, and the leading central growth must be cut back until this is done; the side branches must be trained opposite each other, and if the wall is of brick, three courses should be between each two branches; they will be about 9 inches apart. All the treatment required is to train the branches horizontally, and stop all side growths in summer and cut-back closely now. In fan training the side branches are nailed-in from the main growths, from which they are trained at right angles. Plum, Cherry, Apricot, and Peach trees are trained on this system; and the aim of the trainer is to preserve as much bearing wood as possible, cutting away all worn-out branches or any that show traces of disease.

Apriots are much subject to gumming; if a branch shows signs of this disease it ought to be cut away and others be trained in its place, else it will die in the ensuing summer, causing an ugly blank. Peach trees should be left until the last, and as they are much subject to the attacks of red spider and aphids, it is better to unnaill all the branches from the wall and to use new nailing material; it is also a good plan to wash all the wood with strong soapy water.

### FRUIT AND FORCING HOUSES.

**Vineries.**—It is a very usual and commendable practice to grow pot Vines for the earliest crop, and forcing may be commenced at any time. The Vines may either be bought from the nurserymen who grow canes especially for forcing purposes, or they may be grown at home. It will depend upon circumstances whether it will be best to purchase or to grow them. It also depends much upon how they are started whether there will be a good show for fruit or a comparative failure be the result. They must be started in a low temperature to begin with—say 45° at night, and the roots ought to be warmer than the tops, not that a high bottom temperature is necessary or even desirable. 65° would be the best to start with; this would gradually bring on the roots until the night temperature of the house was 65°, when the bottom heat might be 86°. This ought to be the highest minimum temperature throughout, except that it may be 70° in the house when the Vines are in flower. The best sorts for forcing in pots are Black Hamburgh and Foster's White Seedling. Buckland Sweetwater is a distinct Grape, and when it succeeds is even more esteemed than the other white sort.

The weather this year has been exceedingly unfavourable for late-keeping Grapes, and the large bunches which are now so much sought after are not adapted for very late purposes. The bunches of Lady Downe's are generally small and seldom shouldered, which is one reason why they keep well when large compact bunches of Gros Guillaume are unsightly from their tendency to decay in the centre. Gros Colman is an excellent-keeping sort, and is gradually obtaining popularity for late houses. Compared with Lady Downe's it is said to keep quite as well, and for appearance far excels it; its flavour is also esteemed by many palates. It is necessary to urge again the importance of carefully cutting out with a pair of Grape scissors all decaying berries as soon as a spot of decay is perceived. We are also very careful not to sweep the passages or any stages that may be in the house so as to cause dust.

### GREENHOUSE AND CONSERVATORY.

Here it is also very necessary to guard against damp, as, with Grapes, large close soft-petalled flowers suffer most, but the removal of decay is the best way to preserve the flowers for a length of time. Cyclamens require much attention in this respect; scores of flower buds cluster at the base of the leaves, and not only do these buds become mouldy, but the stalks of the leaves decay and the leaf falls down amongst the buds, causing much damage in a day or two. We brush the leaves aside with the hand and pick all the decaying parts out as often as it becomes necessary. When water is applied to the roots it is best to pour it carefully in close to the rim of the pots. Stage Pelargoniums are now placed very near the glass, and are watered but sparingly. The only insect to be feared is the green fly, and the plants will not remain healthy if this is allowed to increase. They are also subject to a disease termed "spot." The prevailing cause of this is a close atmosphere, or the plants are placed in a position where the air does not play freely amongst the leaves. Too much water at the roots is also very injurious to them. The fancy varieties are even more tender in their constitution than the other sorts. They require to be potted in lighter soil, and in other respects must have more attention, not only now but all through the growing period.

Cinerarias are coming in very useful at this time. There is great variety and brilliancy in the flowers, white, rose, crimson, and red shades, and from pale slaty blue to intense deep blue, others having flowers of the richest plum purple, and the flowers are so lasting in their character that a continuance may be had from now until April. A variety of flowers are obtained by forcing, and when a large supply is required a forcing house is essential; but it is always possible to introduce a few Roses, Hyacinths, early Tulips, *Dialytra spectabilis*, and spring-flowering shrubs into theinery; when a bed is made up it is an excellent opportunity to obtain the requisite amount of bottom heat, and the temperature required for the Vines is that most suitable for the plants.

Amaryllises are now at rest in the coolest house, no water at all being given to the roots until they are introduced to heat. It may also be noted that they do very well in the earlyinery. The gentle bottom heat promotes root action, and as soon as the flower buds and leaves begin to grow out of the bulb, the pots, if necessary, may be removed to a house with a higher temperature. We usually place them on a shelf near the glass in the Pine house, where they enjoy a temperature of from 60° to 65°. Amaryllises are sometimes grown in over-large pots. No error in culture is greater than this. The largest pots that we use are 8-inch, and many of the bulbs are potted in a size smaller. Stiffish loam, with an admixture of sharp silver sand and a small portion of leaf mould, is the best potting material. We drain the pots well. A succession of flowers is obtained by introducing a few pots at different times.

### FLOWER GARDEN.

All the beds usually devoted to summer bedding plants, and those that are not planted with spring flowers, may be dug or trenched at a time that is most convenient, but the treatment will be different according to the nature of the soil and also of the annual rainfall. Even in what is usually considered wet seasons our plants suffer from drought, and water is not easily obtained. The plan is to trench the ground and manure it highly with cow-dung principally, placing a layer at the bottom of the trench, and this is done about every alternate season, and it is seldom that water is required. Should a very dry period occur, a good supply of water is given and the ground is mulched with short manure. On heavy soils and where the rainfall is much more than ours, treating the beds in this way would only cause a very luxuriant growth of leaves with few flowers.

We look over the Auricula frames about twice a week and remove all decaying leaves, watering such plants as require it. After this time water will be almost withheld for two months or more. Carnations and Picotees are also looked over in the same way.—J. DOVELAS.

### TRADE CATALOGUES RECEIVED.

Robertson & Galloway, 157, Ingram Street, Glasgow, and the Nurseries, Helensburgh.—Catalogue of Roses.

Edwin Cooling, Mile-ash Nurseries, Derby.—*Catalogue of Roses, Fruit Trees, Ornamental Shrubs, and Winter-flowering Plants.*

O. Kilminster, Burgess Hill, Sussex.—*Catalogue of Dutch Flower Books.*

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix upon the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (*Young Hopeful*).—As you need a cheap work, our "Garden Manual" will suit you, free by post for twenty postage stamps. (E. Y.).—You do not say whether you wish for a book on gardening, or for general instruction, or for mere amusement.

GRAPES AT OSMESTON MANOR.—We have one or two letters confirming the explanations we gave. There was no imputation that Mr. Harrison is not a skilful gardener, and therefore we need not occupy more space relative to the subject.

ADVERTISEMENT FOR GARDENERS (F. H. F.).—Every gentleman advertises for the kind of assistance he requires, and no one need be offended. Many men who are not qualified for a head gardenership would very efficiently manage a small garden and help in other ways.

SHEARS (E. W.).—We are obliged by your sketch. They are a good variety of garden shears, and are well known.

LIGUSTRUM JAPONICUM (C. R.).—This beautiful evergreen shrub, of spreading bushy growth, with large white flowers "like a white Lilac," is perfectly hardy, but is improved by a sheltered position.

PROPAGATING LEUCOPHYTON AND ALTERNANTHERA (C. A.).—*Leucophyton* Browni is hardy in light well-drained soil, but in wet heavy soil is liable to go off in winter. Plants may be taken up, potted in light soil, and wintered in a cold frame with protection in severe weather. Propagation is effected by division in spring, or the wiry "spray" may be put in as cuttings in gentle heat. *Alternanthera* should be potted or placed in pans, and wintered in a temperature of 50° to 55°, and encouraged in February with a brisk moist heat, the cuttings being put in March in a good bottom heat, and grown-on so as to make nice plants by planting-out time.

VINES PRODUCING SMALL GRAPES (*An Irish Subscriber*).—Give the border a dressing of rich compost—light turfy loam, with one-third of manure added, a fourth of charred vegetable refuse, and a fifth of half-inch bones, or three parts turfy loam, and one part each manure, short and fresh, charred refuse, and half-inch bones, the whole being well mixed. Remove the surface soil to the depth of 8 to 9 inches, if you can go so deep as the latter without injuring the roots, and replace with the fresh compost one-third thicker than the soil removed. This may be done now, mulching over the surface with littery manure, removing the littery part in April. A sprinkling of guano over the surface of the border washed-in with water at a temperature of 75° when the Grapes are set, and again when the first indications of colouring appear, in each case making the surface of the border quite yellow with the guano or 4 lbs. per square yard, will be of great benefit to the Vines.

TREES FOR CEMETERY AVENUE (*A Sub. to "Our Journal"*).—If the situation be sheltered, not bleak and exposed, the Decid. (*Cedrus deodora*) would be the most suitable, and the next best in evergreens *Lawson's Cypress* (*Opuntia Lawsoniana*). If you want shade for the footpaths you could not have anything better than Limes, the red-twigged variety being best, *Huntingdon* Elms being good, also common and purple Beech.

PRUNING CLEMATIS (G. Killarney).—The plants having become bare at bottom, your only plan will be to cut them down to within a foot of the base, and depend upon shoots being emitted from latent buds at the bottom of the stem; but if the stem be devoid of them your best plan would be to disentangle some of the shoots and train them downwards over the trellis and as low as you can, depending upon the shoots they give next year for covering the trellis equally throughout, which can only be secured by frequent regulation of the shoots during growth. Propagation may be by layers made now of firm shoots. Prune the Clematis in early spring before growth takes place. *Deutzias* and *Syringas* require no pruning beyond shortening irregular growths and cutting out old bare wood. Do it in winter after the leaves have fallen, but in mild weather.

PROPAGATING RHODODENDRONS (*Idem*).—Grafting is practised for the choicer varieties, the stock being potted the winter previously, and kept plunged in coal ashes in a sheltered situation over the rim, and duly seen to for water in summer. Grafting is best done at the close of August or early in September, side grafting being the most eligible mode, the plants after grafting being shut up in a frame, the lights inside brushed over with whitening brought to the consistency of whitewash with skim milk. Cuttings of the young wood inserted at the same time in sandy peat, surfaced with an inch of silver sand under a hand-light or cold frame, shaded and kept moist, and if given a gentle bottom heat after a callus is formed they will root more surely and speedily.

DIVIDING GLADIOLUS (*Idem*).—Take up the clumps the early part of next month, whether they have foliage or not, and planting again the same day, they will sustain no injury.

TEMPERATURE FOR *TODIA SUPERBA* AND *ADIANTUM FARLEYENSE* (J. P. Jun.).—The *Todia* will do in a cold house, but better in a house from which frost is excluded, to which we should at once remove the plant. *Adiantum farleyense* requires a stove, or in winter a night temperature of 60° to 65°, and day 60° to 65°. *A. acuminata* and *A. cuneatum* will succeed in a house from which frost is excluded; but *A. cuneatum* grows better in a cool stove or warm greenhouse.

GRAFTING VINES (E. K.).—The stocks should be cut-back at once to where you propose to graft, and the operation should be performed when the house is started, putting-in the grafts by the usual tongue or whip-grafting, and on the upper side of the rods. The stocks cut-back now should be pared smooth, and have applied to the cut part Thomson's styptic or patent knotting used by painters. This will leave no wound for bleeding only where the scion is inserted, and this should be well secured. Have two eyes to the scions, using grafting wax in preference to clay, covering over the junction with a little moss, sprinkling with water three times a day lightly.

GRAFTING CAMELLIAS (*Idem*).—Whip-grafting is best, as by it the neatest and best junction is secured, and the best time for performing it is in spring, just when the plants are commencing making fresh growth; but it must be done before the scions have commenced to push, the scions being of the well-ripened growths of last year, and with three or four leaves or joints. After grafting place the plants under a handlight in a house with a temperature of 55°; and if the pots are plunged in a bottom heat of 70° to 75°, they will unite more speedily and with greater certainty. In six weeks the union will be complete, the bandage should be loosened, and the plants gradually hardened-off, but continued in heat until the growth is complete, then removed to a cooler house.

PARSNIPS CANKERED (B.).—The cankered surface is due to the attack in the early stages of growth of the Carrot-fly (*Pila rosea*), or *Pila nigrescens*, and we have known canker result from the boring into the roots by the maggots of the Crane-fly (*Tipula alaracea*). Quicklime and soot pointed into the ground at sowing time, half a bushel to each per 80 square yards, is a good preventive, but a better remedy is gas lime at the rate of half a peck per rod (804 square yards), or twenty bushels per acre. The ammoniacal liquor of the gasworks diluted with six times its volume of water, and applied to the ground with a rose watering-pot a day previous to sowing, is also a good preventive of canker. After an attack of maggot the plants go very much to top, having remarkably fine luxuriant foliage.

REMOVING ROSES (H. B.).—Leave them as they are until required to be moved, keeping the growths after July shortened rather closely, preventing as much as possible long sappy growths from being made. In removing keep the roots from drying winds, and by watering at planting, and sprinkling overhead daily if the weather be dry, you may safely move them in September.

PLANTING ORCHARD (*Gregory Young*).—The trees are sufficiently close together without the Plums between each line of Apple and Pear trees, which will only leave the trees 18 feet 6 inches apart, whereas they should not be less than 30 feet, better 34 feet apart. We should remove the Plum trees, or increase the distance to 34 feet, or you may leave the Apples and Pears as they are and plant the Plums elsewhere 24 feet apart. This distance is not too much, especially as you propose growing bush fruit in addition to the standard trees. We should trench the ground at least 18 inches deep, and loosen the bottom of each trench another 6 inches, but not bringing to the surface more than 6 or 8 inches of the previously unmoved soil, and apply the manure to the surface, and pointing it in. It would be desirable to give some well-rotted manure well mixed with the soil used for planting with.

SOIL FOR ROSES (S. M.).—Your black loamy soil, with the addition of a fourth each of the marly clay and old hotbed manure well intermixed, will grow the Roses well, the ground being trenched 2 feet deep, and the manure added and mixed with the soil as the work proceeds.

PREPARING GROUND FOR DAMIELIAS (*Idem*).—We should have the soil trenched now two spits deep, placing between the top and bottom spit a liberal dressing of manure, and place the marly clay on the surface after trenching, and throw up the soil as roughly as possible for the winter. During the first dry frosty weather after the middle of February fork-in the marl, throwing the ground level, and in March apply to the surface a liberal dressing of well-rotted manure, and fork it in during dry weather, again turning the surface with a fork at planting time.

PRUNING ROSES (T. Kenneth).—Having planted them this month we should not prune them until February, and the dwarfs at the same time, in both cases pruning rather closely—i.e., the strong shoots to three or four eyes, the medium to two, and weak shoots to one eye of their base. Secure the plants against winds, and if frost prevails in February defer the pruning until milder weather.

PEAS FOR A SMALL GARDEN (*Idem*).—William I. (Laxton's) is the finest of all early kinds, attaining to a height of about 8 feet. It may be sown at the beginning of next month in a warm situation, or the first open weather after the middle of February or in March, sowing at the same time Best of All (Maselem's), which attains a height of about 8 feet, and the latter-named kind at intervals of three weeks up to the middle of June, putting-in at the same time Omega (Laxton's) about 24 feet, and these will give you a supply of Peas of the first excellence up to October, and later if frost permit.

SELECT CARNATIONS AND PICOETTES (*Idem*).—We name a dozen of each, the first-named in each class being the most moderate in price. *Carnations*—*Crimson Biscarres*: Eccentric Jack and Isaac Wilkinson. *Scarlet Biscarres*: William Pitt and Campanini. *Purple Biscarres*: Purify and James Taylor. *Purple Flakes*: True Blue and Ajax. *Scarlet Flakes*: John Bailey and Superb. *Rose Flakes*: Mrs. Martin and Sybil. *Picoettes*—*Red-edged*: Mrs. Keynes, Princess of Wales, and J. B. Bryant. *Purple-edged*: Mary, Alliance, and Mrs. Little. *Rose and Scarlet-edged*: Gipsy Bride, Juliana, Mrs. Allcroft, and Mrs. Fisher. *Yellow Grounds*: Prince of Orange and Claude. If you only want them for cut flowers the Clove Carnations are good, and there are now some very fine varieties, as King of Yellows, Bride, Prince Arthur, Grand des Batailles, Maiden's Blush, and Christine; and of *Picoettes* Mrs. Kalk, Sparkler, Amazon, Margaret, Gem of Roses, and Beauty.

RENOVATING VINERY (R. A. W.).—The border inside ought to be the full width of the house, especially if you have no outside border; but the present width of outside border we should retain in addition to the inside border, having the front wall with 2-foot openings and 14 or 18-inch pillars, the openings the depth of the border, and arched over, or a stone head placed across the openings and only a few inches below the level of the border. The openings and outside border may be made after the Vines have been planted a year or two. To have Grapes in June you will require four rows of 4-inch pipes along the front of the house. We do not recommend any particular kind of boiler, but we advise you to have one sufficiently powerful to do its work with ease. You may plant the Vines inside and still continue the present Vines, but we should not continue them more than a year; and if the Vines are closely planted, or if they cover the roof, it would be well to discard the old Vines at once, for the young Vines must have room for their foliage to be fully exposed to light and air, so as to secure the thorough ripening of the wood. Plant strong or fruiting canes, but do not allow them

to fruit the first season. All the Vines named, except Black Hamburg, are unsuitable for ripening in June, but are good for a late house to be ripe in August and hang until after Christmas, and some will hang in good condition until March. Black Hamburg, Duke of Buccleuch, Mill Hill Hamburg, and Foster's Seedling, or Buckland Sweetwater, would be suitable for the earliest house.

**TODNA SUPERBA (D. W. H.).**—It should be wintered in a cool house, but frost should be excluded, as, though a few degrees of frost may be endured by the plant, we have known the fronds discoloured thereby. It requires a compost of rough fibrous peat, with some crocks (broken pots) intermixed about a sixth, and good drainage, affording moderate pot-room.

**RENEWING VINE BORDER (Idem).**—With an inside border you may renew the outside border, and that without losing a crop of Grapes. It is not necessary to place charcoal next the roots, but mix it with the soil. The lifting of the Vines and renewing of the border would be best done just before starting the Vines, giving a covering to the border of hot dung and leaves ten days or a fortnight before applying fire heat. The lime rubbish should be removed and mixed with the compost of the border, but one-third of it will be sufficient for that purpose, and in place of the lime rubbish have that more depth of properly prepared border, 15-inch depth of border being much too shallow.

**ORDERING CAMELLIAS, &c., FROM GHENT (B.).**—Orders for these are best given in early autumn, so that the plants may not suffer in consignment from severe weather, as they are liable to do if transmitted during the winter months.

**CHRYSAETHUM JULIE LAGRANIERE (J. F. F.).**—It is not a Pompon, neither is it a large-flowering variety. The blooms are medium-sized, reflexed, of a reddish crimson colour, and are produced in great profusion. The plant is a sturdy grower, and is seldom affected with mildew. It is one of the most useful varieties that can be grown for decorative purposes and for affording a supply of cut flowers.

**CHRYSAETHUMS (J. W. A.).**—They are florists' flowers, of which we cannot name the varieties.

**DIONA MUSCIPULA (H. T.).**—It very rarely ripens its seeds in this country, therefore is usually propagated by dividing a plant.

**NAMES OF FRUITS (W. D. P.).**—Boston Russet. (Kestford).—A, not known; B, Comte de Laury; C, Napoleon; D, Marie Louise. (J. M. J.).—1, Pearson's Plate; 2, Franklin's Golden Pippin; 3, Oransea; 4, not known; 5, Jean de Witte; 6, Grand Soleil. (An Old Subscriber).—1, Ostillo; 2, Deux Sœurs; 3, quite rotten and shapeless; 4, not known; 5, Kerry Pippin; 6, Powell's Russet. (G. Head).—1, not known, worthless; 2, Colmar d'Arenberg; 4, Black Worcester; 5, Braddick's Nonpareil; 7, Pitmanston Russet. (W. H. Ashurst).—1, English Codlin; 2, Uvedale's St. Germain; 4, Braddick's Nonpareil; 5, Hanwell Bouring; 6, Loen's Pearmain. (Easton Newton).—1 and 2, Beurre Diel; 3, Pitmanston Duchess; 4, Vicar of Winkfield; 5, Van Mons Léon Leclerc; 6, Glou Morcean.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### POULTRY FARMING.

At the request of many inquirers I promised to give publicity to my opinion of the best and most profitable plan of keeping poultry of all sorts.

I have always urged that grass runs are absolutely necessary; but I believe most will agree with me that the greater number of their fowls will not seek over a large space of ground, and to rent for the purpose of poultry-breeding a number of acres specially is an extravagance.

In 1873 I devoted a large field of 14 acres of turf from Christmas to Midsummer to fowls only, as I found in early spring and summer a large loss and annoyance from cattle, sheep, and horses grazing with them, on account of the coops being constantly upset, and wire partitions, &c., damaged by rubbing against them. So I determined at once to set apart a portion or portions in acre lots, and after repeated alterations I am satisfied that if those who intend to keep fowls (no matter how many), but as a guide not less than one acre per hundred should be allotted, will follow the plan now submitted (although the cost, as a start perhaps, looks large), they will find economy in the end in money, time, and trouble.

I often notice correspondents are advised to devote too much hen-house room. For one hundred adult birds I consider an acre of grass is ample, and according to the determination to keep flyers or non-flyers, erect a wire fence 6 feet high in the former case, and 4 feet high in the latter, entirely round the four sides of the acre, erecting in the centre of the ground a wooden or other house 5 yards long by 4 yards wide, measuring to the eaves 4 yards in height, the roof of which should be a double span, having in the 5-yards length four stretchers of 4 by 3 to tie the roof together. Upon these bars should be three or four perches laid to suit the birds that roost high. On either side of the roof should be a skylight to lift up to give light and ventilation according to weather, hinged at top. The under side of these should be wired so as to prevent fowls making an exit by them.

The floor should be fixed 4 feet from the ground, so as to afford a space underneath the hen house proper for shelter in damp and windy weather. On all four sides of this under space should be two doors 2 feet by 2 feet, the bottom being 6 inches from the outside floor, about 3 feet from each end of house. Previous to setting joists to carry the floor some rough slates should be laid horizontally all round underneath and touching the joists to prevent rats from climbing into the top house. To form a roosting-stage fix four pieces of 4-by-2-inch timber in a

slanting direction, the foot of each being placed 6 feet from the side of the house, and the top resting against the side near the roof. These lean-to's will form rafters, and on each, at every foot from the top, place a piece of wood of the shape of an L to form sockets in which to rest the longitudinal perches. These should be of 1½ by 1½-inch timber, and they can be removed at pleasure to clear away the droppings underneath. This frame of perches forms roosts suitable for all birds, high or low roosters, and one of the particular advantages is that the fowls all roost together with the tail to the wall, as the long toes will clasp the 1½ and the short the 1½.

Wire netting should be fixed from each angle of the hen house obliquely to each angle of the acre, so as to form four separate quarter acres of ground, and the partitions must be netted sufficiently high to keep the birds in their proper compartments. The main entrance should be where it is best seen from the dwelling house, and to be used for cleaning out, gathering eggs, &c. It should be 5 feet by 2 feet 6 wide, and fixed so as to avoid opening against the roosts. Inside the upper house along the wall, starting at each end, have standing a frame, not a fixture, but secure, forming seven nests in a row 18 inches square, in three or four tiers, each nest having a piece of board running across the front 8 or 4 inches high to prevent the eggs falling, and if two 10-inch boards are used for the horizontal divisions it will afford a walk of 6 inches for the fowls to alight or tread upon when seeking a nest. The nests should be 9 feet 6 wide, and about 4 feet 6 high if three tiers of nests are used. In the centre of the upper house should be a shallow oval or round utensil as large as convenient into which the ashes—that is, the grit, &c., after the household cinders have been riddled, should be emptied, and if insufficient, dry sifted soil, to both of which should be added black sulphur, and every other day or two with a small shovel (after the birds have had time to dust and pick out useful scraps) sprinkle in rows over the droppings under the roosts, so deodorising all noxious effluvia. During the summer months this manure should be removed once a fortnight, and the roosts scraped and greased with a mixture whilst melted of lard, sulphur, and paraffin oil (1 lb. of the first to 1 oz. of each of the two latter), and every crevice or crack should be filled up. Every three months or oftener the houses should be white-washed, taking care to mix with each bucketful half a pint of carbolic acid or paraffin oil, and to be rubbed well in every crevice and joint of woodwork where vermin are sure to lodge. Carbolic acid powder should occasionally be sprinkled through a dredger in and about the house, runs, &c.

The advantages claimed are that the fowls have a constant weekly change of keep, passing over the whole acre once a month. It is preferable that each half, or some portion least in the way for walking, of each quarter acre should be dug up during its term of fallow, and in all such cases to now and again sprinkle straw over that part, and spread all the dry grain given to the fowls upon the dug portion. There is always a week to dig up such a small space of ground. Occasionally a drill or two of various grains might be introduced, so as when the fowls come on that part again they will seek for the sprouted corn. The straw will be found a great acquisition, as the birds will not too readily get their food, and will continue for hours to search for it, and when finding that they are sure at the same time to find insects, &c., besides giving healthy exercise.

When the hatching season commences the hens should be set elsewhere, and when chickens come the adult fowls can be in one space and the coops containing mother and chicks in another space, and so fed upon better and more expensive food, which is often consumed by the larger birds. Then again, when cockerels intended for killing attain a certain age and require fattening they can again for a short time be fed separately, alternately changing the coops and chicks, and closing or opening the doors of the under compartment. A small roost house made moveable could be used by the fattening birds. Again, in late autumn when early pullets are about to commence laying they require more nutritious and warmth-producing food, and this can be facilitated by this mode. I am quite satisfied where young and old run indiscriminately—not even calculating loss from being lamed and crushed, but simply the extra and more expensive food, intentionally given and required by the young, which is in such cases insatiably devoured by older birds—the cost is nearly if not more than trebled during the year, the saving of which, besides the comfort of having all under control, would quickly repay the cost of a suitable structure. I omitted to say that the ventilator over the roosts should be glazed and a piece of timber fixed hanging down from the upper portion where the hinges are fixed, so as to thoroughly light the roosts and yet break the bright glare that would otherwise shine over the nests. That on the opposite side should be fitted with a sine or non-transparent plate.

I advocate the use of milk from early in November till the end of March. I gave last winter £13 worth, also during the same months Tyler's patent amalgamated meal and Brown's aromatic compound as very first-class warmth and egg-producing incentives. Of course there are many others very good, but

more expensive for non-exhibition fowls. In all cases where soft food is given it is best scattered upon the turf in different corners each morning.

It is not necessary to keep a cock with a number of fowls. I cannot account for it, as I can see no reason why it should be, but I have seen repeated instances where birds have laid more eggs for a given number of the same breed and age without the male bird than with one. It is better to pen five hens with a cock a few weeks before the required time for hatching, and make sure of almost all the eggs being fertile. Every cock will during the year lessen the profits 10s. at least.—GALLINACULTURIST, *Hampton-in-Arden*.

### KILMARNOCK ORNITHOLOGICAL ASSOCIATION'S SHOW.

THIS was held in the Corn Exchange Hall and Butter Market on the 12th and 13th inst. The Pigeons were arranged in the large hall in rows, at a convenient height for observation. The Canaries were hung on the wall at one end. The poultry and Rabbits were shown in the Butter Market adjoining the hall, on a lower level. The Society may be said to have reached a mature age, and to be one of the oldest in the country, being established in 1863.

The poultry were a large show of 608 pens. To show the difference between Scotch and English tastes we give the numbers of pens exhibited of each variety:—

Spanish .....	12	Scotch Greys .....	27
Brahma Pootras .....	19	Bantams .....	183
Cochins .....	18	Malays .....	6
Dorkings .....	87	Other varieties .....	6
Game .....	153	Ducks, Geese, &c. ....	83
Hamburgs .....	78	Selling classes .....	61
Polands .....	13		
French .....	22		608

It will be seen from this that the China fowl is not in repute about Kilmarnock. The Scotch people being eminently a practical people have almost discarded the Brahma fowl and its relatives. There are not wanting evidences from England also, judging from letters that appear from time to time in the poultry papers, that Brahmas and Cochins are on the decline.

We were much struck with the fine display of *Game* fowls. They seem the favourite breed about Kilmarnock. The twelve pens of undubbed *Game* showed from the faulty combs of some of them, that were Nature left alone the places of the dubbed ones might often be reversed. The *Hamburgs* were also a good show. Though small fowls they are good layers and consume little food considering their size, and as ornamental fowls we consider them entitled to about the first place among poultry. *French* are increasing and already number more than Brahmas or Cochins, a position they ought to hold we were told. The class for *Scotch Greys* contained twenty-seven pens, and was one of the best in the Show. We never saw such a good lot together before. Although not to be considered ornamental poultry, they have other good points in such perfection that they are sure to increase in public estimation. Of *Bantams*, while Black-breasted Reds, Piles, and Duckwings were shown in considerable numbers, only two pens of Brown Reds put in an appearance. Sebrights were, as they always are at Kilmarnock, well to the front.

The Pigeons were a first-rate collection of 446 pens, and when we say that out of this number Antwerps were eight, Dragons only four, and common Pigeons nineteen pens, this makes 415 pens of really fancy Pigeons. The Pouters were judged by Mr. Huie of Glasgow, his announced colleague, Mr. George Ure, being prevented attending. Mr. Jones judged the rest.

Commencing with *Pouters*, 123 pens, the classification adopted was, as suggested in this Journal—viz., to class Mealy with Blue, rather than with the artificial Black Red and Yellow. The first class was for Black Red or Yellow cock, standard Pied—that is, without any glaring mismarking, for pied to a feather no one expects or can expect to see. No. 610 (Andrew Dunleavy) was a Black of fair colour, rather gay on crop, but a well-shaped bird. No. 611 (David Thomson) a Yellow of fair colour and good proportions, well-feathered limbs, good crop, wanting in pinion. To him was awarded second prize. No. 612 (James Walker), third prize, a Red of good colour, well-marked crop, and wanting in pinion. He was a stylish kind of bird, but too much cow-hocked. No. 618 (Thomas Wood, York), highly commended, also a Red of fair colour and style. No. 614 (James Walker), fourth, a very good-coloured and marked Yellow, with well-shaped and feathered limbs; an upstanding bird, a trifle short in feather. He was to our taste, considering everything, the second best in the class. No. 616 (Ridley & Dye), first and special, a glossy Black of very correct marking except a rather small bib. A very handsome bird of fine lines and finished looking. Clean limbs beautifully set and feathered. All over a good Pouter, he is a credit to his exhibitors, who carried off the cream of the Pouter prizes. Credit is also due to the breeder of all, or nearly all, their fine exhibits, Mr. Mitchell of Glasgow.

No. 617 (B. H. Blacklock) an unnoticed Red of a good stamp in colour, marking, and shape, worthy of highly commended we thought. No. 618 (Ridley & Dye) a Yellow, good colour and stylish, but too deficient in marking for a "standard Pied" class. In this class Mr. Mitchell showed his old Yellow bird, but besides being of a bad colour and no great marking, he is down from age, loose-feathered, and quite out-classed. Blue or Mealy cock, standard Pied, were twenty-one in number. The first of note, No. 623 (A. Dunleavy), highly commended. A capital Mealy of a light tint, well-out moon, but not easy to say anything about pinion from his light colour. No. 623 (James Ferguson), a Mealy of a better colour, brighter red in beak and bars, but not of the same proportions as the last. No. 624 (James Walker), fourth prize. Blue, well-marked, good in colour and style. No. 625 (Hugh Thomson), highly commended, a very good Mealy, but rough-legged and rather wide on them. No. 626 (Ridley & Dye), first and special, a Blue, such another as their Black in the previous class—an easy win. No. 628, same owners, second prize, a Mealy, large and fine, well marked, but not a good colour. We would not have placed him, he was so loose-feathered and down on the wings from age. No. 631 (J. Mitchell), third. This bird was, we were told, full brother to the first-prize one, and rather better in every respect excepting being too gay on the crop, which takes away his finish. Still we would have given him the Mealy's place. No. 634 (R. Crow), highly commended. In many respects a fine bird but with too small a moon. No. 635 (Andrew & Cunningham), a first-rate Blue, but much too white on crop. No. 637 (James Walker) was a handsome Blue and evenly marked, but looked shortish in limb. Class 41 was for Pouter cocks, any other colour, standard Pied, and included Whites. Here, again, Ridley and Dye came in first with a very fine White, long in feather and limb, slim-girthed and good in crop. Second prize fell to an immense and handsome bird, something between a Sandy and a Mealy, but more inclining to the latter, as he had faint bars. He showed a good sprinkling of black ticks about the head and body. We should think he was about the biggest bird in the Show. Both third and fourth prizes went to good Whites; in fact, except the Mealy or Sandy spoken of, the class, composed of fourteen birds, was all White except No. 655 (J. E. Spence) a Red Chequer. He is a handsome shapely bird, and though chequered with a powdery tint on his body feathers, his neck and wing secondaries are of a deep rich red, richer and darker perhaps than the colour of any other Red Pouter in the Show. The next class, 42, for Black, Red, or Yellow Pouter hens, standard Pied, brought out nine birds. The winner was easily found in No. 660 (Ridley & Dye), first and special, a sweet Black hen as near perfection as generally found. She was good in every point, especially in due proportion of limb and feather. Her limbs nicely set and feathered; colour good and marking also. As is too often the case, her moon instead of ending in fine points ran up to her eyes, and this was the only eyesore about her. No. 663 (James Walker), second prize, marked in catalogue Red, was a Yellow of fair colour but not well marked, having no pinion. No. 664, same owner, third prize, marked in catalogue Yellow, was a fine Red (they seem to have transposed these two pens), the best Red for colour in the Show, finely-out moon, but no pinion, well-shaped and feathered limbs. We would have made the Red second, and the Yellow third. No. 659, still the same owner, was a solid-winged Black of fair colour and good style. Eleven Blue and Mealy hens competed in the next class, 43. Here, again, Ridley & Dye were successful, taking both first and second prizes with Blues. Both were well-marked nice birds, but though the first was the largest the second was the nicest in shape, but was unfortunately Kite-barred. Mr. Mitchell's well-known Mealy came in third, and a most taking hen she is, one of the slim-girthed kind that never thicken. She is over three years old now, and but for the fact of her having a division of colour in her moon, otherwise finely out, dividing it into two parts, she would not have been beaten by any Pouter hen in the Show. No. 674 (J. Walker), fourth prize, a Blue finely marked and stylish, quite as good as the other winners, and taking them together they were a very even lot. No. 675 (D. Lawrie), highly commended, well marked, but wanting in general finish like the winners. The next class, for hens of any other colour, standard Pied, including Whites, brought out only eight. Here James Walker, No. 676, was first; and Ridley & Dye, No. 677, second with good Whites; third and fourth fell to Joseph Scoular and John Scoular with hens of the same colour, and all the four were of a handsome and stylish appearance. No. 679 (B. H. Blacklock), a very glossy and good Black, wrongly entered in this class. Twenty-two young Pouter cocks bred this year comprised Class 45. No. 686 (A. Hutchison), commended; a tidy little Mealy of good shape. No. 688 (J. Walker) a dull-coloured but evenly-marked handsome Red, commended. No. 689 (Thomas Wood), highly commended, a slightly-made Red cock, of colour much above the average, and heavily stained on the rump and tail as many fine Reds are. No. 690 (Hugh Thomson) Smoky Black, otherwise a good bird and well marked. No. 692 (Hugh Thomson), first and



special, Black, worthy of the honour, good colour, nicely set limbs properly feathered, and marking about perfect. No. 698 (Ridley & Dye) fourth, Black, stylish but no pinion. No. 694 (Hugh Thomson), commended, a very nice Blue, short of marking, with very good limbs. No. 708 (James Walker), third prize. A really handsome well-marked Blue of good proportions but ticked all over with slight chequer marks and brown-barred. No. 704 (James Walker), second prize, rightly placed, Blue, not a large bird, but very comely. Pouter hens of any colour, bred in 1875, were fourteen. No. 707 (David Thomson), fourth prize, Yellow. No. 712 (R. H. Blacklock), second, a Blue exceedingly handsome and well-shaped. No. 713 (Ridley & Dye), highly commended, Yellow. We preferred this one to the fourth, having better cut moon, and better set legs. She was solid-winged and not very lengthy. No. 714 (James Mitchell), first prize, a good-coloured Black, long in feather but with scarcely enough limb, and rather wide set. In marking also rather deficient having little bib. No. 718 (James Walker), third prize, a Blue, a good bird. No. 719 (J. Walker), highly commended, a fine rich-coloured Yellow. Class 47, Any other Pouter cock, seven entries; and Class 48, Any other Pouter hen, five entries, we considered decided mistakes. Whatever the body colour of a Pouter is, if he is decently marked and with good points otherwise, we can admire him, but a lot of solid-breasted, solid-winged, ring-necked, bishop-sleeved birds, some with blazes up to the crown of the head, and others white from the lower mandible to the thighs, wanting both bib and belt, are nothing but an eyesore. The meagre number of entries showing that there are either few such birds about, or that their owners are disinclined to exhibit them, should prevent the repetition of such classes. The only birds eligible for it are, in our opinion, Splashes, by which we mean Whites with coloured tails, or slightly marked about the head and back, but not to such an extent as to come under the definition of mis-marked birds, and as none of this description were visible we conclude that no class is wanted for them.

**Carriers.**—Ridley & Dye were first and third in cocks of any colour with a good Black and a good Dun. The Black was especially good in wattle, good also in general style, being long-feathered and long-necked. He did not, however, stand-up on his legs so well as the Dun. Mr. Hugh Bankhead was successful in taking second, and Mr. McCrae fourth. In hens the first went to No. 744 (Alex. Smith), a very good Black, as glossy in colour as any Black Pigeon we ever saw, and with wattle and eye both good. She was a fine upstanding and proportionate bird, and stood quite away from the others. The class for young Carriers of any colour or sex contained twenty, mostly Blacks and Duns, and many of them of great promise. Mr. James Ross was awarded first prize, and Mr. E. C. Stretch second.

Only eleven Short-faced *Tumblers* competed, mostly Almonds, and not a few of them showed they had been altered from what Nature made them. No. 777 (Bryce) was first and special with an Almond cock clearly before the others, not only good in colour but also in head, beak, eye, and carriage.

**Barb** cocks were also eleven, the winner of first and special being E. G. Keay's Black, Mr. Bryce's Dun being second, and his Black third. 785 (Spence), a good Yellow cock was very ill-looking and seemed unlikely to reach home alive. We cannot understand how Barbs are called by some so high-class as to be out of the category that includes Jacks, Owls, Fantails, &c., and to be considered equal with Pouters, Carriers, and Short-faces. We always thought that any Pigeon fit to be named beside these three breeds, must, like them, have something beyond mere fine points—viz., a certain highly-bred way of carrying themselves, called shape or carriage. We never saw anything of this in Barbs, and without it they never can be allowed to be on an equality with the three varieties named. We have often heard it remarked that a Barb is only at his best when he is half decayed, and that you see all of him at a glance. He squats in his pen all of a heap, and has none of the ever-varying motions so charming in a Pouter or Fantail, the fine attitude of a good Carrier, or the dignified strut of a Short-face. Barb hens were only five, and Mr. Bryce was first and third with Yellows, the former of a sound colour throughout, but the latter smoky blue in rump and tail. Second went to Mr. Laurie's Dun, a nice one, and of that glossy, hard, dark Dun only seen in Barbs, and so different from the Carrier Dun.

In *Trumpeters* Mr. J. E. Spence showed and won with an all-black Scotch-bred Russian, a really splendid bird. We should think his rose would be  $1\frac{1}{2}$  inch in diameter, and his hood if measured along the ridge following the semicircle at least  $4\frac{1}{2}$  inches. He was a particularly upstanding bird for a *Trumpeter*, showing his lines beautifully and not struck all of a heap like so many of them. The other was a Mottle—there were only two of them—but in no degree to compare with the Black.

**Fantails** were twenty-three and well judged, considering the Judge sympathises with the English style, but now so many Scotch birds have large tails and plenty of motion as well, the big tail alone, with nothing more, cannot win. Whites seem the favourites, and the class was chiefly composed of them, but

there was an all-black and two saddle-backs, one of which, No. 798 (W. Nelson), was a Chequer so nearly black as to be taken for it, and as clear-out as a Turbit. For motion, constant, and grotesque, we have not seen the like of this one for many a day, and we think the coloured sides are an additional property, just as a shouldered Turbit is superior to a White.

**Jacobins** contained twenty pens of Blacks, Reds, and Yellows, and were nearly all of the maned style. We saw some of them examined, and the plucked backs of their heads exposed. Without believing that the Jacks of the day have been crossed—for we have always considered the Reds and Yellows proverbial for richness of colour, and cannot imagine where this could come from—we are rather inclined to the belief that the manes are merely the result of selection. We bred them years ago, and found the big coarse ones often came so, and always considered that it resulted from the feathers lying the wrong way. As for the plastered-down hood we consider it an abomination, and as we have heard it remarked by good fanciers, makes the bird at a little distance off look like a Bald-head.

No less than thirty-three *Turbits*, Black, Red, Yellow, and Dun, competed; but, strange to say, not a single Silver. First and special went to Andrew & Cunningham's peak-headed Yellow, good in colour and good all over; second a peaked Blue (M. S. Temple); equal thirds to Robert Miller and to M. S. Temple for a Shell-crowned Blue, the best in Turbit points in the lot we thought, excepting the shell, for we prefer the peak; fourth to R. J. McKinlay's peaked Red, good in colour and frill, but not so fine in head and beak.

**English Owls** nineteen pens, all Blues and Silvers, except one of Whites. As pointed out in this Journal some months ago, it was suggested that English Owls being so far behind Africans in all the properties of the breed, they were not worthy of support, but that in so far as the colour known as powdered blue, a beautiful and striking colour, is not found in Africans, it might be well to make a class for it till Africans or Owls equal to them could be produced of the powdered colour. Fulton's book, part nineteen, lately out, suggests something of the same kind, and no doubt this plan will be adopted some day. It seems strange how what are called English Owls, though palpably and plainly in many cases only coarse or crossed Africans, should continue to be encouraged by intelligent committees of shows, while the English *Trumpeter* has been quite ostracised. Of the nineteen pens exhibited none were powdered, and as there were some good foreign Owls in the Variety class the English Owls contained nothing to please the writer or those of his way of thinking.

Class 80, for common *Tumblers*, Self-coloured, contained twenty-one pens of pretty birds. First were glossy Blacks, second pearl-eyed Whites, third rich Yellows, and fourth equally rich Reds. The next class was for common *Tumblers*, Blue-barred or any other colour. We did not see any Blues, but the fourteen pens exhibited contained Black, Red, and Yellow Mottles nicely marked, and some Almonds.

Class 62 was a charming collection of twenty-one pens of *Beards* and *Balds*. We think scarcely anything could exceed the beauty of colouring and marking displayed in this collection, combining Blacks, Blues, Silvers, Reds, and Yellows.

**Antwerps**, any colour, were, as we have already said, eight pens, and *Dragoons* four pens. As they take in money and special prizes to the value of £5 10s. for 8s. that they contribute in entry money, we do not think these classes will be repeated, at least we heard some murmurs to that effect.

"Ring out wild bells,  
Ring out the false, ring in the true."

**Common Pigeons**, nineteen pens of what we learned in our early days went by the name of sods; all Blue or Blue-chequers, except a pair of Whites.

**Nuns** twelve entries, all Black except two Red; the latter not so good, however, as the Blacks, who carried off all the prizes.

Any other distinct variety nine entries. First 998 (E. G. Keay), Blondinettes, mostly lovely birds—fancy Pigeons indeed. Second 994 (W. Brydon), equally pretty petite foreign Owls, White; third (John Cowe) beautiful powdered Ice Pigeons, the colour of a tropical moonlight with creamy bars; and fourth (J. Allan) nice sharp-out Magpies.

The **Selling** class, not exceeding 40s. for a single cock or hen, contained a miscellaneous assortment of twenty-three pens. A Carrier cock, No. 1019 (G. Brown) carried off first prize; a bad-coloured Red Pouter fourth. We did not see many birds marked as sold, though good value was to be had.

The concluding class, No. 69, was a **Selling** one for a single cock or hen not exceeding 30s. Thirty-two were entered here, and a Barb cock secured chief place. There was a good "old style" Yellow Jack, very much like Hutton's portrait, which we were told had been claimed by Mr. Huie. There was plenty of good value in this class also, but few marked "sold." Probably as closing time drew near more business was done.

**SPANNERS.**—1 and cup, Willoughby & Parvia, Hestham. 2, E. Jackson, Finchfield. 3, W. McIntyre, Oshliffe. 4, J. Ross, East Gatehead. 5, W. Outhbertson, W. Wallace, D. McBeath, J. Edgar, 6, E. Begg.





changed places. In hens or pullets there were eleven entries, the winner a very good hen of much excellence in all points. Second a promising pullet: 1545 (Fitch) a prettily-coloured bird, but poor in feet. Piles were a nice lot, and Mr. Fitz Herbert showed a good team of birds and did well with them. The winning cock is yellow-legged, and a splendid one too. Second a good adult cock, and third a fair cockerel. In hens or pullets we much admired the second-prize pullet, and thought perhaps a card might have been placed over her master's hen. Third another very good hen. 1565 (Stabler) a good old pen requiring more time. Black or Brassy-winged made up only six pairs, three of which belonged to Mr. Montessor. The first went to Black chickens, the other colour taking second and third honours. The same gentleman's other pen (unnoticed) was a smart pair of Blacks, the hen being especially good, but her mate failed in feet. In the undubbed Game class a smart Brown Red cockerel won the cup, but we did not quite like his colour. Second and third also went to Brown Reds, of which the former was a very nice bird in all respects. Seven birds were commended in this class, of which perhaps the best were pens 2414 (Fitz-Herbert), a Pile, and 2405 (Cameron), a capital Brown Red.

**MALAYS.**—No less than seventeen pens were entered. Mr. Hinton won the cup and first prize most deservedly. The cock is a superb bird and in grand feather. Second went to a capital pair of old birds of very even and sound colour; and third were a younger pair, very good, and of true Malay shape. Miss Brooke's was a nice pen and the colour was good. Mr. Burnell's pen were fair, and not dear at 50s. There were no less than seven pens empty, including those of Messrs. Payne, Falle, Perry, and Brownlie. We never saw so many empty pens in many of the classes at the Palace as on this occasion, and wish a mark could have been put against such tenantless pens in the catalogue for the edification of absent readers.

**SPANISH.**—These made classes better in numbers than quality. Of the four lots we thought the pullets best. The winning cocks, however, were all good. The first-prize bird also won the cup; he has a fine face of good colour. Next to him we liked the only highly commended bird in the class, for his lobes were very first-class. Hens were all backward; they will be in grand form by Bristol; as they were, many looked pinched and untidy. The cockerels were fair, nothing very grand anywhere, Mr. Chilcott's perhaps the best. Pullets made an improvement; the winner was nice and will improve yet. Second was a splendid bird with a beautiful face, and would have been first we should say easily but for her twist. Third certainly of great promise. The highly commended birds were, many of them, capital. Of them perhaps pens 1054 (Jackson), 1068 (Goddard), and 1070 (Chilcott), were as promising as any.

**POLISH** were very good. The varieties are putting in a capital appearance. The Golden-spangled were especially good, and really there were a dozen pens worthy of prizes which only had "highly condemned," as some jocosely term them. The winning old cock is a wonder in all points and was looking well. Second also a grand old cock, his crest and wings being especially good. Third went to a nice chicken promising to make a good one. All the noticed birds were good, and the Judge rightly called it "an extremely good class." Hens again were beautiful. The old winner looks splendid and won the cup; we never saw a better crest, and she has really moulted out as fresh as a daisy. Second good in colour, but not so perfect in crest as some of the other birds, still of great excellence; and third another really good bird. This class won the title of being "extraordinary," and the birds were certainly a superb lot. We believe Mr. Boothby lost his hen for £10 10s.: we say "lost," because we should say she was a bargain at the money. Silvers were also a very fine lot. We liked the winner in cocks very much. He wants more time, and will then run in as nearly the best old Polish cock extant we should say. Second was a good bird of immense crest and prettily marked—a good second. Third a very smart-looking bird, but not quite so all in colour. Hens were very fine, and Mr. Adkins indeed did well; his crests are very beautiful, and his hens have all such good markings. Mr. Hinton's hen was very fine, but her markings are not quite our fancy perhaps. Mr. Beldon's was a splendid hen, and almost deserved a better place. White-crested Blacks were very beautiful, but we were sorry to find so many pens disqualified. It would be well to know what amount of trimming is allowed, for we can but believe that every bird of this breed that wins has a certain amount of it. The winning cock was an old bird, a fine fellow, but his crest is not ready. Second, a very nice bird with neat crest. The third bird we liked the best of the lot; he is a fine cockerel with a grandly coloured crest. Mr. Norwood's bird was a pretty cockerel, but ordinary cockerels have no chance against old birds in this breed. Hens were very nice, the winner singularly good in crest and colour, and well first; second a very well-grown pullet of good colour with a large crest; third a beautiful hen with fine crest. Of the disqualified birds we will say nothing.

**SILKIES.**—The judging here was good, and we were pleased

to see all the prizes given to one type of bird, for crests, ears, and combs prevailed before mere perfection of leg-feather. The winning pair contained Mr. Woodgate's cockerel first at the Alexandra Palace, which was claimed there, mated with a very fair pullet. Second were beautiful in shape and head, but the cockerel's neck was full of pen feathers, which made him look a little yellow. Third a very nice even pair all round. Mr. Broad's old bird had a charming comb, one of the very best we ever saw, but the legs are in a bad state. 1695 (Holmes) a very nice pair, well-feathered, but a shade coarse-looking.

**LEGHORNS.**—We did not think the Browns so good as they were at the Alexandra Palace or Oxford, though perhaps many of the birds were the same. The winners, we are told, are imported. They are very nice in colour, and have beautiful lobes, but lack somehow the smartness of their English relations. The second were a nice pair, but we thought the cock carried his tail badly, and we preferred perhaps the third, where the cock was a fine bird, or even the pen of Mr. Mannock, 1669. Mr. Kitchen's birds were not, we think, his best, as we have seen better specimens of his at other shows. We can sympathise with him in having to fall back upon attendants to choose his birds for exhibition in his temporary absence from home. His birds in pen 1671 were extremely good in ears and colour. Whites made up eight pens, in which the colour was on the whole pretty even. The winners were well in first, and are very showy. Second not so good in colour, but still a smart pen. Third belonging to same exhibitor, and much resembling his second-prize pen. Mr. Fowler's were nice birds, and so were Mr. Day's, but they did not seem so large as the winners.

**ANDALUSIANS.**—This was the first venture here for this breed, and eleven pens were entered, of which half a dozen came from Miss Arnold. This lady won first and second with two nice pens, both of which contained very beautiful cockerels. Third went to a nice pen of adults belonging to an old admirer of this breed.

**VARIETY CLASS.**—This was extremely good. A very splendid pen of Black Minorcas, as good as any we ever saw, were first; fourth prize also went to a very good pen of this breed. Second prize was won by a fair pen of Cuckoo Cochins, and third nice White four-toed Sultans. 1711 (Harris), Black Malays of great lustre.

**THE UNTRIMMED CLASS.**—Very early on the first day we found ourselves in front of Class III, and we waited for the awards with much interest and great curiosity. We judged the class before the cards were up according to our own ideas, and could then only pity the people who had paid their 7s. 6d. each, and had no chance of the prizes by not sending vulture-hooked specimens. We were amazed later on when the awards were out to find that the Judge had evidently not thought more of hooks than any other point, and had given the prizes to the best birds in the class according to his ideas. The birds that won were a very beautiful Spanish cockerel, second a good Dark Brahma cock, and third a fine Dark Brahma hen (hooked). The class had twenty-eight entries, and we saw among them a Crève, Malay, a Spanish, and a Bantam. In Asiatics there was a good White Cochins cock, some fair Buffs, and one or two good Brahmas. We left the class regretting very much that it had not been called "the class for vulture-hooked Asiatics," when all the unpleasant words about it would have been spared; and we cannot help thinking that even after the schedules had been issued this class could have been set right by a few lines in the poultry papers; for though the disturbance did not arise till the entries were closing or had closed, considering the circumstances a week's act of grace could perhaps have been given to this class. As it was, the Judge acted undoubtedly wisely in keeping to the class as advertised in the schedule, and making hooks no more a *sine quâ non* than any other feature.

**WATERFOWL.**—The Aylesbury Ducks were very good. They were in pairs where Mr. Fowler's truly wonderful pair were again first. Second were also good, having splendid bills. Third a nice pair. Fourth were also good, and better matched, perhaps, than the third. Rouens were divided as to sexes, Mr. Evans did well. His birds are simply perfect, and splendidly shown. We never saw larger specimens, and congratulate their owner on his winnings. Second and third drakes both good and of large size. All the noticed pens were good, and would have come to the front well in any ordinary competition. Blacks made an immense class, of which Messrs. Kellaway and Sainsbury sent no less than ten pens. Mr. Kellaway had all his four pens in the list. We really cannot criticise the class, for we could never get the lot into equal light; but we may say that Mr. Sainsbury's Ducks were perfect beauties, and we do think the prizes should have been more divided between Devizes and the Island. Black Ducks, however, are dreadful things to judge, and we never envy anyone this work. Mr. Walker's drake is a beauty; what a pity he cannot buy a small Duck! And Mrs. Hayne's and Mr. Serjeantson's, though possessing much colour, are too large for the fashion. In fancy Ducks, Spotted Bills, Mandarins, and Carolinas won the prizes. They were all in lovely feather, and we can never make out in

such even company what the Judges go upon. Geese were splendid. Mr. Fowler once more to the front. Second went a cheap pen of Greys, and third to really good Whites.

TURKEYS had three classes. The quality was very even, as most of the specimens huge. The 1875 birds were especially good, and very well grown birds, calling to remembrance pleasant thoughts about the winning season.

The Sale classes were so immense and the quality so mixed that we could not attempt to go through them, especially; the remarks would hardly be of interest, so many of the birds having gone to fresh owners; but we must say one word about the first-prize Buff Cochins in the cock-and-hen class. The pullet is a wonder, the cockerel not worth a crown. We wonder if she will shoot hooks or a tail. We hope not, for she has got to a new home for £14 14s., and the lady who purchased her one who has striven against many difficulties honestly to come to the front in this fancy for which we all have so many pleasant feelings.—W.

**HAMBURGHES.**—As a rule the five varieties of Hamburgs are kept much in the hands of their old admirers and exhibitors still we rejoice to see some new names in their class, and these too, in the prize list. The cup for the best cock went to Golden-spangled bird, that for best hen to a Golden-pencilled and we think both the awards good.

**Golden-spangled cocks.**—The first class indeed. The cock bird was, we saw, marked sold, though ten guineas was his catalogue price. He is as near perfection as possible; his sickle flowing in an elegant curve, and his comb such as is rarely seen in spangled birds, ample, yet free from coarseness and beautifully spiked. Second a very good bird too; the peak of his comb not quite straight, and he has not the wonderful style of No. 1. Third a pretty bird with good carriage, but showing white edge on the breast and thigh feathers, so often taken off, and a slight blush in the lobes. Hens were in many cases out of condition, and we did not think the class a remarkable one. First was a bird showing traces of age on the head and back—viz., white-edge feathers. She is very round, and large in spangling. Second another old bird, small, and not bright in comb; her spangling glossy and even but not very large. Third a bird of very rich ground colour. We liked Mr. Pickles' highly commended bird.

**Silver-spangled cocks.**—The first-prize bird was certainly not equal to the Golden winner. His comb is large and a trifle coarse, but honestly shown; his spangling large and very green. Second a well-shaped bird with smaller spangling, particularly well marked on the wings. Third a less heavily spangled bird and too light towards the thighs. In spite of the present taste for very heavy spangling, we must say that we like to see spangled and not a black breast. The very highly commended bird (Pickles) in this class took our fancy. Hens.—No 1, to our ideas, a perfect bird, good in form and condition, with round and even spangling. Second a very nice bird which would mate No. 1 well. Third had large spangling, but not so clear in tail and not so elegant in carriage as the former two. Mr. Carr's very highly commended and highly commended birds were both good specimens of the lighter spangling.

**Golden-pencilled cocks.**—First was a lovely bird, perfection in colour, with good lobes, and excellent in carriage. Second in most points equal to the first, but rather too copper-coloured in tail. Third a smaller bird, good in carriage and lighter in neck hackle than the other prize birds. Hens.—First the cup bird beautifully barred and coloured, a trifle deficient in comb. Second also very well marked and good in colour, but not so clear in neck hackle and not good in comb. Third a heavily barred bird, a little mossy on the wing. The very highly commended bird was also good and heavily pencilled.

**Silver-pencilled cocks.** First was a pretty little bird, good in carriage, with an honestly shown comb but barred sickles. Second we preferred on the whole to the first; his head and comb are excellent, and he has beautiful flowing sickles. Third not a bird of the same style, somewhat squirrel-tailed, with one sickle not well grown. 1852 (Webster), commended, is a promising bird, but still very young. Hens of the Silver variety are as a rule rather more heavily pencilled than we like. First a pretty and well-formed bird with this heavy marking. Second good in lobes, too dark on the back. Third lighter in pencilling and deficient in breast-marking, which must have pulled her down.

**Black cocks.**—First a beautiful bird, in which we could see no fault. A faultless comb in a Hamburg cock which is, as in his case, also evidently as Nature made it, is a great beauty, and should receive its reward from a Judge. Second good in colour but coarse in comb. Third a glossy nice bird, which we were sorry to see ill on the third day. We liked the carriage of 1871 (Simpson). Hens.—First very good in colour and form. We observed in her a peculiar blue rim round the lobe, almost like that of a Silky; we have seen it in other Black Hamburg hens but never to the same extent. Second a neat bird, not a bad match for the first. Third very fair, rather pale in comb. 1864 very highly commended (Maxtor), a blooming bird, spoiled by a

Newcomer.—Marked Yellow.—L. W. Jackson, A. T. Newbold, J. Dent, & C. G.

JUDGES.—Poultry: MR. E. HEWITT, Birmingham. Cages Birds: MR. G. J. BARNESBY, Derby.

### HINCKLEY PIGEON AND RABBIT SHOW.

THE Show was held at Hinckley on the 17th and 18th inst. in the Corn Exchange, a room too small for the purpose, though held at the same time as the Crystal Palace Show, yet the entries were very good. From some cause the pens (which were from Whitwick) did not arrive, and this upset the whole of the arrangements, which seemed otherwise very good.

The Pigeons were placed in a very good light on the top of the Rabbits, which in some cases were rather difficult to see. Posters: the first going to a White cock of great size, with good hump, and (as we sometimes hear it put) "at the right angle;" second a well known Blue hen, which to be seen is to be liked; third a White cock, a little flat, but otherwise good; very highly commended a large Blue, but thick in girth. Carriers, first a Black cock, second a Dun, and third Black; very highly commended a grand Dun hen, a spout seemingly recently cut. Dragons a splendid lot, the first Yellow, second Blue, and third Yellow; six very highly commended, all well worthy of prizes. Antwerps, Short, were very good, first a Red Chequer, as also third, the latter rather rough in girth; second Silver Dun, good, but rather thin in beak; very highly commended a handsome hen of that colour. Long-faced Antwerps were also good, the first a Red Chequer of rather slaty hue was of immense strength of head and beak, and was stylish for so large a bird; second also of that colour; and third a Blue Chequer, long and strong. Tumblers, first and second Yellow Agates, and third a Kite. The Variety class was a puzzle indeed, and two extra prizes were allowed, as also in the Selling class. First a Black Barb; second Almond Tumblers; and third a White Owl; extra second a very pretty Pouter; and extra third a Red Jacobin cock. In the Selling class were some very good birds. The first was a most perfect Spangled Ice; second and third Black Carriers; extra second a Black, and extra third Red Barbs; and altogether this was the best Selling class we have seen for some time. In the local classes our notes are all bad, except the Antwerps (which were very good), the Tumblers, and the first in Variety class, a nice Yellow Turbit.

For the money given the Rabbits were a very good entry—namely, 91 in seven open, and 10 in two local classes, 101 in all. There was but one class for Lops, and it would be much better if these were divided into at least broken and self colours, and there is no doubt but that this would pay well. In this class the first was a Sooty Fawn doe, 22½ by 4½, very good in style, quality of ear and dangle, and perfectly straight in leg, a point very often overlooked in the eagerness to get length of ear; second a Black doe, 21½ by 4½, splendid in shape, even, fine in quality of ear, carriage, and condition; third a Black buck, very large, 21½ by 4½; very highly commended a Black-and-white doe, 22½ by 4½, not in good order, and small; very highly commended Tortoiseshell, very bad order, 21½ by 4½; several others running about the same, all points counted, and we would just say these were measured reasonably, and not as to pull the ears out of their sockets, but just as if we had tried it upon ourselves for a quarter of an hour before commencing operations. Angoras were a nice class, the quality surpassing many shows we have seen of late, but the size was not equal to some. Himalayans were a moderate class, the winners, however, very good, the first especially, and this in the catalogue at £1. The Northampton first was highly commended, and has gone sadly back. Silver-Greys a fair class. First a smart sharp-silvered doe; second a buck, large, even, but a little coarse and mealy; third was, however, better in quality, but much smaller; very highly commended a very promising young Rabbit. The Dutch were a grand class, and every one noticed, and the three winners as correct as any three we have ever seen together. First a Black-and-white, second Tortoiseshell, and third Black-and-white, but quite young and small. In the Variety class the first was a large and good Belgian Hare, second a Silver-Orean, and third a Patagonian; very highly commended a young Belgian Hare, a good colour, but short of marking. The Selling class was

large, but there were not many of very high merit. First was a good young Silver-Grey; second a Lop, 20½ by 4½; and third a Belgian Hare. In the local class of Lops the winners were 21½ by 4½, and 20½ by 4½, respectively.

The Committee seemed very willing to do the work correctly, but with limited room and inexperience we saw some errors; but as a whole the Show was well conducted, and we hope to see a more extensive schedule of prizes and better accommodation at the next attempt. The prize and sale money was sent off by cheque on Saturday night.

Mr. Yardley won the point prize for Pigeons; and Mr. Johnson of Kettering the one for Rabbits.

#### PIGEONS.

Posters.—1 and 2, H. Pratt, Hampton-in-Arden. 3 and 4, W. Hottage, Northampton. 5 and 6, J. Martin. Carriers.—1, 2, and 3, H. Yardley, Birmingham. 4, W. Larkin, do. W. Larkin, A. Makins. Dragons.—1, R. Woods, Mansfield. 2, H. Yardley. 3, A. Makins, Liverpool. 4, A. W. Wren, R. Woods, F. W. Jennings (A. Makins), A. Patten. 5, R. Woods, W. Larkin, A. Makins. 6, R. J. Rowley. Antwerps.—Short-faced.—1, R. D. Gough, Wolverhampton. 2 and 3, A. Farndon, Hinckley. 4, H. Yardley. 5, H. Yardley, C. Gamen. Long-faced.—1, C. Gamen, Chester. 2 and 3, T. H. Strach, Ormskirk. 4, C. Miller. 5, A. J. Gamen.

#### RABBITS.

Lop.—Doe or Doe.—1, R. Woods, Mansfield. 2, H. Houghton, Potters. 3, W. J. Coley, E. Pepper, J. Hingham, T. & R. J. Full, J. Barber. 4, W. J. Coley (A. Makins). 5, A. Githens. Angora.—Doe or Doe.—1, R. F. Henson. 2, R. Houghton. 3, W. Larkin.

#### LOCAL CLASSES.—PIGEONS.

Dragons.—1 and 2, A. Farndon. Antwerps.—1 and 2, A. Farndon. 3, J. Trivett. 4, A. Farndon, J. Patten, J. Trivett (A. T. S. Laidlow). Tumblers.—1 and 2, A. Farndon. 3, J. Tomlin, A. Farndon. ANY OTHER VARIETY.—1 and 2, T. S. Laidlow (Yellow and Red Turbit). 3 and 4, A. Farndon (Columb and Carrier).

#### RABBITS.

Lop.—Doe or Doe.—1 and 2, E. Pepper, Hinckley. 3, G. Houghton. 4, R. Arnold, W. Chapman. ANY OTHER VARIETY.—1, E. Pepper (Angora). 2, G. H. Houghton, Cattle Hill, Hinckley (Himalayan). 3, J. H. Houghton (Belgian Hare). 4, T. S. Laidlow (Silver-Grey).

JUDGES.—Mr. E. Hewitt, Poultry.

BIRMINGHAM POULTRY SHOW.—As announced last week, the entries for the twenty-seventh annual Show at Bingley Hall, on November 27th, 28th, 30th, December 1st and 2nd, are over the average, and an excellent display in nearly every department is anticipated. The London and North-Western, the Great Western, and Midland Railway Companies have acceded to the wishes of the Council, and announce numerous excursion trains from most towns within a radius of fifty or sixty miles. The stock and poultry are due to arrive on Thursday and Friday. The special appeal for support from the town and district, which has been recently issued, has been fairly responded to; and, as subscribers of 10s. or 20s. receive 15s. and 30s. value in tickets, there ought to be no difficulty in maintaining the list at such a figure as will enable the Council to continue, if not to increase, the amount of their present liberal prize list. (Midland Counties Herald.)

### OLDHAM BIRD SHOW.

THE first Exhibition of Birds of the Oldham Ornithological Society took place in the Temperance Hall, Horseedge Street, on the 11th, 12th, and 13th inst. Upwards of £80 were announced to be given in prize money, besides several silver cups and a timepiece. Whether the whole of the money announced to be given away will be disposed of rests entirely with the promoters of the Show. Several of the exhibitors who were prize-takers in some classes were proved to have exhibited painted birds in the Golden-spangled Lizard class, and to such a disgraceful extent that to award them prize money would be encouraging them and offering premiums for spurious-coloured specimens.

No less than half-a-score birds in Class 7 were found to be : **HARVESTING HONEY—THE EXTRACTOR.**

No. 1.

A LARON majority of bee-keepers keep bees for the sole purpose of securing a profitable harvest of honey, often in complete ignorance of the best means to pursue to secure their object, and I purpose in this paper to discuss the methods now in practice, and if possible to show how a better course may be pursued. Beginning with straw skeps I fear I step at once on dangerous ground, as our friend Mr. Pettigrew will tell me I am decidedly wrong when I say they are a mistake, should be obsolete, and are fit only for a museum of apiarian antiquities, or for use by those persons who cannot be made to comprehend the meaning of the word "progress," or by those who are too nervous or cowardly to handle their bees. To such people it is perfectly immaterial whether they use skeps, boxes, or frame hives; all are sealed books to them. I write now for those who are desirous of learning how to make the most of the thousands of willing labourers who toil for them.

Fig. 101.

There are three primary things to be considered; firstly to produce honey, secondly to produce it of superior quality, and thirdly to sell it. Few persons are aware of the enormous

Fig. 102.

amount of honey that at times is in the flowers ready to be gathered, and the small proportion of it harvested by the bees

not that they are idle—far from it, but probably two or three days' work has sufficed to fill all the available space in the hive, very likely not much, for it may chance that the stock is prospering under the sway of a young prolific queen whose brood fills many thousand cells. In this case, as fast as a young bee emerges from its cell the latter is immediately taken possession of by the anxious workers, and filled with honey; the queen wanders disconsolately over the filled combs unable to lay her eggs, and if this state of things continues so long, in about three weeks half the bees have died a natural death, and there being but few young emerging bees to succeed them the stock becomes weak from over-prosperity, and when the next glut of honey comes, with so many home cares the bees are unable to take advantage of it. Now, the only way to ascertain this state of affairs with straw skeps is to turn them up and examine as far as one can the combs; but how many bee-keepers will or can do this? It is not impossible, but not one in a hundred will make the examination. The addition of a super or skep will to a great extent relieve the bees if they use it, which they will not always do. With frame hives the bees, whether they will or no, may be helped in a few minutes to their own and their master's profit; but I will come back again to this presently. Straw skeps are commonly used (I except Mr. Pettigrew's pattern, of which I have no experience) in a good season will not, I am sure, yield an average of 20 lbs. of honey, both run and super. I am perfectly aware personal skill and attention will often succeed better than this, but I speak of the returns of fairly intelligent men. If I select labouring men alone, 10 lbs. per hive would be too great an estimate; with frame hives and proper attention this might be greatly exceeded. It is true that at the late Crystal Palace Show Mr. George Fox of Kingsbridge, Devon, exhibited a glass super of 86 lbs. obtained from a common skep, but this was the only super of note from a similar source; although had as the season was frame hives sent many, yet the number of skeps in use greatly exceeds frame hives, as everyone knows.

Straw hivists are not the only people I have to call to account for not making the best use of their bees' labour. As exceptional returns from a single straw skep we are amazed at 100 lbs., from a frame hive 150 lbs.; but what should we say at 500 lbs.? and yet this has been exceeded in America by the use of the extractor, which is universal with large bee-keepers there. That our Yankee cousins are very oute nobody can deny, and with them bee-keeping is a trade, the traders all adopting frame hives, Ligurian bees, and extractors.

Fig. 101 is an exterior view of the prize extractor "The Rapid." Fig. 102 is the interior mechanism. *a* is a framework of wrought iron kept together by cross pieces on the top and bottom; the cross piece on the top has a short spindle working in a bearing on cross bar (*d*), which also supports the driving wheel (*c*), and on end of spindle is a pinion (*d*) which is worked by the driving wheel, by which means the whole is thus made to rotate. On the bottom cross piece of the frame is another short spindle (*d*), which works in a socket fixed to the bottom of the can, and thus completes the support of the frame. Instead of a level floor the bottom is coned, so that the honey runs clear of the machinery, and is let out by a treacle valve. *f* are two cages covered with wire net; they work on pins which form hinges. These cages

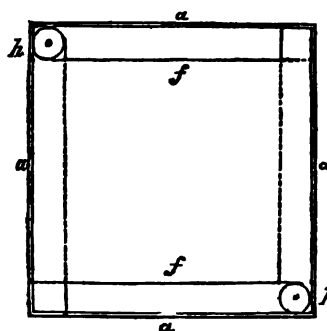


Fig. 102.

*h* are the pins on which the cage swings. I may conclude by saying every part is well galvanised.—JOHN HUNTER, *Raton Bisc, Baling.*

### OUR LETTER BOX.

**HARM RABBITS** (*A Subscriber*).—Write to Messrs. Baily & Son, 118, Mount Street, Grosvenor Square, London.

**CANARY SUFFERING FROM ASTHMA** (*M. Clarke*).—Your six-years-old Canary is in a sad state. It is suffering from asthma in anything but a mild form either, and when complaint will continue until death, which most probably will take place before the termination of winter. Brass-wired cages never

meet with our approbation for Canaries. The wires become corroded when moisture gets upon them, and if the birds peck at the poisonous corrosion injury ensues to them. Why thus jeopardise the life of a pet bird? On the other hand, we are not going to say that in the case of your afflicted bird that its illness has been brought about entirely owing to its having been kept in the brass-wired cage. Canaries are liable to asthma even when kept in cages otherwise wired. Generally asthma is the result of cold caught when the bird's blood is in its worst state—when moulting. At this stage they require protection from cold draughts of air. The bird being kept where gas is used is warm at one time, and cold and chilly during the night. To endeavour to effect a cure it appears you removed the bird from the elevated situation it was in to one upon the floor, which is always the coldest part of a room. By so doing you certainly encouraged a greater difficulty of breathing, for the bird being ill at the time required warmth and better nursing. Remove the bird into a position midway between the floor and the ceiling, and keep the cage covered over, except the front, during the day, and entirely during night. To the water fountain add a few drops of sherry; give a bread-and-milk diet, and half a dozen drops of cod-liver oil mixed with a little soaked bread when the water is squeezed from it, which will nourish your invalid. In the place of green food at this ungenial season supply linseed, some scalded rape seed, and a few groats. You may thus prolong life for a short time if you allow the bird to continue in its miserable state. Our cure, if such it may be termed, would be more speedy. We should put the bird out of its misery and replace it with another, for at the age of six years it cannot be expected to afford much further pleasure considering the state it is in.

**AMERICAN CHURN** (*A Subscriber*).—There is a shop at the Oxford Street end of Holborn which specially has for sale the American inventions.

**BEES** (*A Young Beginner*).—1. The fern will do very well, provided it is kept dry. 2. For the sheep hive you want write to Mr. Abbott, Hanwell, near London. His price is 6s. 6d. 3. It is a very good sign when bees take in pollen at whatever time of year. It is a sign that the queen is breeding. She lays eggs in winter as in summer when the weather is mild, although of course not in the same degree.

**FELT HIVE COVERS** (*Farmer*).—Roofing felt is 33 inches wide, and may be bought in lengths by the piece, or by the yard at 1d. per square foot, or 8d. per lineal yard. This is the highest retail price. In cold weather it is hard and stiff, but easily softened and made as pliable as flannel before a fire. When first used on a hive it should be softened, wrapped round and tied close to it with a string. It can be placed so that the whole hive is covered and the board overlapped, and thus shed-off every drop of rain. We have hives covered with felt that has been constantly used for ten years, and if it were retouched with tar or pitch might be efficient as a protection for another ten years. Felt is not an ornamental covering for hives, but its durability, convenience, and portability recommend it to us and all our friends who have used it.

### METEOROLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.			IN THE DAY.				Rain.
	Rainfall.	Hygrometer.	Direction of Wind.	Shade Temperature.	Radiation Temperature.	In sun.	On grass.	
1875.		Dry. Wet.		Max. Min.	deg. deg.	deg. deg.	deg. deg.	
Nov.								
We. 17	1.009	44.5 44.0	W.	44.5 45.0	40.0 40.5	54.5 55.0	48.0 48.5	0.070
Th. 18	1.046	53.3 50.4	W.	45.5 56.8	48.3 48.8	51.8 52.3	46.0 46.5	0.080
Fri. 19	1.070	58.0 53.9	W.	45.5 56.3	50.3 50.8	51.5 52.0	45.9 46.4	0.011
Sat. 20	1.095	56.7 53.3	N.N.W.	46.8 56.3	55.5 56.0	54.8 55.3	46.7 47.2	—
Sun. 21	1.095	56.8 54.8	N.	48.5 56.8	58.8 59.3	58.0 58.5	46.8 47.3	—
Mon. 22	1.059	56.4 53.6	N.N.W.	48.0 56.0	54.0 54.5	54.5 55.0	46.5 47.0	0.008
Tu. 23	1.080	59.0 56.3	N.N.E.	52.0 54.8	56.0 56.5	54.5 55.0	46.5 47.0	—
Means	1.006	48.0 41.3		44.5 50.1	48.8 49.3	53.9 54.4	46.6 47.1	0.109

### REMARKS.

- 17th.—Fine though hazy and cold in the early morning, but followed by a damp disagreeable day; the after part the best; wind rising at midnight.
- 18th.—Very fine all day; rather cloudy between 1 and 2 P.M.; but a starlight night.
- 19th.—Wet and cloudy till the afternoon, slight shower after; dark very early; windy night.
- 20th.—Very fine all day and all night.
- 21st.—Fine all day, but very much colder; stars at times very bright.
- 22nd.—Fine till 2 P.M., then a slight shower, and a damp though not rainy afternoon.
- 23rd.—Fine all day; white frost in the morning.
- A much finer week than we have had for some time. The mean 9 A.M. temperature nearly identical with last week, but the range much greater—for instance, the 20th was 19° colder than the 19th.—G. J. SIMONS.

### COVENT GARDEN MARKET.—NOVEMBER 24.

The Market is generally in a very dull state. Apples, Pears, and Quinces continue to arrive in immense numbers. French Asparagus is also arriving with liberal consignments of salading. Prices remain virtually the same as last week.

	s. d.	s. d.		s. d.	s. d.
Apples.....	1 sieve	1 0 to 2 0	Mulberries.....	lb.	0 0 to 0 6
Apricots.....	dozen	0 0 0 0	Nectarines.....	dozen	0 0 0 0
Cherries.....	lb.	0 0 0 0	Oranges.....	100	8 0 10 0
Chestnuts.....	bushel	12 0 20 0	Peaches.....	dozen	12 0 15 0
Currents.....	1 sieve	0 0 0 0	Pears, kitchen.....	dozen	0 0 0 0
Black.....	do.	0 0 0 0	dessert.....	dozen	1 0 2 0
Figs.....	dozen	0 0 0 0	Pine Apples.....	lb.	8 0 6 0
Filberts.....	lb.	0 0 0 0	Plums.....	4 sieve	1 0 2 0
Cobs.....	lb.	0 0 0 0	Quinces.....	bushel	2 0 0 0
Gooseberries.....	quart	0 0 0 0	Raspberries.....	lb.	0 0 0 0
Grapes, hothouse.....	lb.	1 0 5 0	Strawberries.....	lb.	0 0 0 0
Lemons.....	100	6 12 0	Walnuts.....	bushel	4 0 10 0
Melons.....	each	1 0 5 0	ditto.....	100	1 6 2 0



## WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 2—8, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
2	Tu	Linnean Society at 8 P.M.	47.4	33.7	40.5	43	47	51	48	51	11	31	7	5	10 17	286
3	W	Geologists' Association at 8 P.M.	47.0	35.5	41.2	49	7	51	8	after.	37	8	6	9	58	287
4	Th		45.1	35.4	42.3	50	7	51	8	50	0	54	9	7	24	288
5	F		49.0	35.2	42.1	52	7	50	8	48	0	12	11	8	4	289
6	SUN	2 SUNDAY IN ADVENT.	48.2	35.7	42.4	53	7	50	8	51	0	morn.		9	8	340
7	M	Victoria Institute at 8 P.M.	48.4	33.5	40.9	54	7	49	8	5	1	51	0	10	8	341
8	Tu	Society of Arts at 8 P.M.	45.9	33.6	40.8	55	7	49	8	17	1	51	1	11	7	342

From observations taken near London during forty-three years, the average day temperature of the week is 47.8°; and its night temperature 31.4°.

## NECTARINES.

## THE RENOVATION OF OLD TREES—AN ESTIMATE OF SORTS.



**NEOTAR**, the fabled drink of the gods: hence Nectarine. The name is certainly as appropriate as it is suggestive, this fruit being especially notable for its delicious flavour, all the best kinds now in cultivation being more or less excellent in this respect; it is, however, excellence in degree, for even here we may not claim to have attained to full perfection. Pitmaston Orange is my standard sort for flavour. Taken at its best

when fully ripe and with a slight tendency to shrivel it is difficult to find its equal among Nectarines or any other fruit. It was placed first at the great Fruit Show at the Alexandra Palace in September, not because its fruit was finest, but because the Judges very wisely tested it and the larger fruit of Lord Napier for flavour.

Before proceeding to discuss the merits of some kinds, I wish to call attention to the renovation of old and exhausted Peach and Nectarine trees. By exhausted trees I mean those which are in such an enfeebled condition as to produce nothing but small undersized fruit. This lamentable state of things is more frequently owing to over-cropping and to injudicious management than to actual old age. There never was a greater mistake made than the modern advocacy of sensational heavy cropping of very young trees. Talk of "floricultural millinery," that is a trifle in comparison to the ridiculous extreme to which pruning, pinching, and cropping by line and rule have been carried. Take a young tree, plant it, stop its first growth at so many eyes or inches, cut off its toes—I beg pardon, roots—prune it, lift it; in fact, do anything that will prevent a vigorous growth, and cause it to form fruit buds so that you may be able to entertain the delusive fancy that you have a quick return and clear profit upon cash expended, if it be only a farthing the first year and three farthings the second. This is the form which such teaching really takes when put into plain language: if it is followed what is eventually the result? A crippled weakly growth, incapable of bearing fine fruit; and in any case the condition of the fruit is as unsatisfactory as is that of the tree. Premature decay follows, and the trees are then said to be short-lived; climate, soil, and tree being declared at fault rather than the cultivation. If we must have rules let one be that no tree shall bear fruit till the third year after planting.

There is no doubt that really old trees are often kept on year after year bearing fruit of inferior size and quality without any attempt at renovation or improvement. The remedy is plain, yet it is not always possible to apply it. One would, of course, like to adopt sweeping measures with such trees, but this is impracticable when it is imperative that there shall be an annual supply of fruit, no matter how indifferent its condition may be, and so the only plan is to take one or two trees in hand each year till the whole of them are gradually, almost imperceptibly, brought into a better condition. Now, despite all that

has been said about the tenderness and early decay of Peach and Nectarine trees, it is an indisputable fact that most old trees possess a wonderful amount of vitality, hardiness, and an inherent vigour, which, when the old worn-out branches are removed, bursts forth with such power as to quickly replace them with others of such strength as will rival the growth of the most sturdy newly-planted tree. Is there not a valuable lesson to be learnt here? It was not long ago that Mr. Wright pointed out most clearly how much the vigour of a Grape Vine was kept in check by its old knotty spurs, the hardened contracted tissue preventing the quick flow of sap—precisely that prompt and ready action which a brisk growth demands and must have in order to sustain it in full vigour and enable it to bring the crop to maturity. Just so is it with the Peach and Nectarine. When the main branches become bark-bound the action of the sap is so sluggish that the branches cannot put forth shoots of sufficient strength to produce fine fruit. Cut back the whole of those branches to within a foot or two of the bole, see that the roots are in a suitable medium, and in two or three seasons you have a tree re-invigorated, the growth young, vigorous, and fruitful, and the fruit itself of large size and excellent in the highest degree.

Mr. Rivers has greatly enriched our collection of varieties of Nectarines with his splendid seedlings, which, in addition to great intrinsic merit, have, by the earliness of some and lateness of others, materially lengthened the time when ripe fruit can be had. I have planted most of them, but all have not yet fruited. I have great hopes that Albert Victor, which ripens its fruit about the middle of September, will prove of much value, and should be glad to know the opinion of others who have fruited it. Pine Apple is the latest kind I have yet fruited; it proves a great acquisition, succeeding the mid-season kinds, and formed an admirable finish to the past season, which was so well begun by

*Lord Napier*.—This is a very fine kind, the branches, foliage, and fruit all being of an extraordinary size, much of the fruit attaining a circumference of 8 to 9 inches. Its colour when ripe is a pale yellow, with light red on the exposed side. The fruit is very handsome, and of delicious flavour. It is ripe in August—earlier than any other good kind.

*Pitmaston Orange*.—A distinct sort of the highest excellence. The large oval-pointed fruit is finely coloured—a bright orange, with deep crimson on the sunned side; the flesh is of a deep orange colour, with a tinge of crimson next the stone. It is very sweet, rich, and juicy, surpassing almost all other Nectarines in its exquisite flavour and fine aroma. The growth of the tree is not quite so vigorous as most others, but it is perfectly healthy, and I have no hesitation in giving it the prominent and leading position of which it is undoubtedly most worthy.

*Downton*.—A very fine Nectarine. The fruit, which is produced in great abundance, is very handsome, large, with the skin of a deep crimson hue; the flesh is melting, rich, and very juicy, with a brisk acidulous flavour that is most

refreshing. The tree is very robust, and it is altogether a first-class kind. I have an impression that this excellent variety has been somewhat neglected. If I am right I would strongly recommend all, who can afford space, to plant it, for it is worthy of a place in the most choice selection.

**Balgowan.**—This is another fine kind; a note of it in my fruit book for the current year states that it is "a tree of wonderful vigour, laden with an abundant crop of fine large fruit, beautifully coloured, very sweet, rich, and delicious in flavour. A valuable variety." The growth of the tree is certainly something wonderful, surpassing all other kinds that were planted at the same date. It is usually described as a very hardy kind, but I have observed a greater tendency to canker in it than in any other Nectarine which I have.

**Rivers' White.**—A good and very useful sort, cropping freely. The fruit is of a pale yellow colour, sweet, juicy, and of pleasant flavour. Especially valuable for its colour. The tree is vigorous and healthy.

**Stanwick Etruge.**—This is a very prolific variety, but the fruit was decidedly inferior in appearance and flavour to all the foregoing varieties during the past season. It is only fair to add that the crop was a heavy one, which would in some measure account for its deficiency in points of so much importance as size and flavour.

**Pine Apple.**—This splendid variety may very justly be termed a late Pitmaston Orange, and as such is of the greatest value, for in it we have a most valuable succession to the general crop. The fruit is very handsome in form and colour, and surpasses most of the other Nectarines in size and flavour, which is wonderfully full and rich. Unlike Pitmaston Orange, my tree is very vigorous, and promises well for another season.—EDWARD LUCKHURST.

#### GRAPES NOT COLOURING.

I HAVE a vineyard glazed with Hartley's patent ribbed glass, and I have been informed that Grapes seldom colour under it. I am at a loss to tell where to blame this failure, whether it is the glass, border, or the past treatment. The Vines at present are in a fair condition, and have this year borne a heavy crop of uncoloured Grapes. The varieties are Black Hamburgh and Trentham Black. The Trentham Blacks are as well coloured as can be desired, while the Black Hamburgs in the same house are as red as a fox. I intend renewing the border to see if that will remedy the evil. I shall be glad to hear the opinion of some experienced Grape-growers. I may mention that a gentleman near has a vineyard glazed with the same kind of glass. The Vines planted are the Black Hamburgh, and are healthy and vigorous, and were carrying when I saw them a good crop of large, well-formed bunches of badly-coloured Grapes. The complaint there is the same as my own.—E. H.

#### THE ROSE ELECTION—ROSES AND NOSES.

I TAKE now the concluding portion of the Rose election for 1875, that of perfume. This is a novel attempt; I am not certain that it is successful. Electors, not a few, appear to distrust their nasal organs, and others confess to a want of education of these organs as connected with Roses. Although "a Rose by any other name would smell as sweet," yet it would certainly appear that not a few Rose-growers allow her in some degree to "waste her sweetness on the desert air." There is little doubt that Rose-growers for exhibition look at a Rose twenty times before applying to them that organ for which in the "Eyes versus Nose" of Cowper, "the spectacles" were really intended. Few rosarians can lay claim to such an educated organ as Mr. Curtis, Devon Rosery, Torquay; and if the wise men came from the east, at least it seems to me that the appreciators of Rose perfume dwell in the west, for Mr. R. W. Beachey and Mr. Curtis are the only electors who appear to have analysed the various perfumes that our national flower possesses. This, their lists, the only lists of perfume I shall print, sufficiently prove.

In undertaking this election I was prepared for some extraordinary results. In my weakness I fancied the old Cabbage Rose must be near the head of the poll; but it is far from that, and I can only imagine that many electors have never had the opportunity of testing the merits of this delicious old Rose. Let me, however, first present the poll—premising that as only twenty electors have ventured to give their opinions on this point, I have mixed the two classes of electors together, believing that there was nothing to be gained by the separa-

tion, and that one class of nose was just as good as another. The first column of figures, A, denotes the number of times each Rose is named in the first twelve; the other, B, the votes in the second thirteen; whilst the last column shows the number of votes each Rose received.

A & B Total				A & B Total					
1	La France	29	1	30	26	Ferd. de Lesseps	3	4	7
2	Devonshire	13	5	18	27	Comtesse Océide de Chabillant	1	5	6
3	Maréchal Niel	11	4	15	28	Francis Michel	1	5	6
4	Charles Lefebvre	10	4	14	29	Général Jacquemont	1	5	6
5	Louis Van Houtte	8	6	14		not			
6	Gloire de Dijon	9	4	13		Duchess of Edinburgh (M.P.)	3	5	8
7	Alfred Colomb	5	8	13	30	Old Moss	3	5	8
8	Marie Bannmann	5	8	13	31	Xavier Olibo	1	4	5
9	Bessie Johnson	6	6	12	32	Rev. J. B. Camm	4	—	4
10	Abel Grand	5	7	12	33	Scupper at Nothing (Moss)	4	—	4
11	Sénéateur Valseur	5	7	12	34	Duke of Edinburgh	1	3	4
12	Camille Bernardin	5	4	10	35	Madame Fillion	1	3	4
13	Bouvenir d'un Ami	4	6	10	36	Madame Willems	—	4	4
14	Cécile Forestier	—	9	9	37	Mad. C. Joliveau	3	—	3
15	Goubalt	7	1	8		Narcisse	2	1	3
16	Madame Knox	4	4	8	38	Dumpey & Fleur	—	3	3
17	Cabbage	4	4	8		Jeanne	2	1	3
18	Catherine Moutet	5	2	7	40	Dr. Andry	1	2	3
19	Pierre Notting	4	3	7	41	Alma Bley	1	2	3
20	Richard Wallace	3	4	7	42	John Hopper	—	3	3
21	Mad. Victor Verdet	2	5	7					
22	Mlle. Marie Badé	3	4	7					
23	Julie Margottin	3	4	7					
24	Madame Forté	5	2	7					

Here is a table that I feel confident will excite some surprise. La France alone nearly achieves a first-class certificate all round, only one elector giving her a second-class vote. It has not been my custom hitherto to mention these eccentricities of electors; I have no scruples on this occasion, as that second-class vote was given by the returning officer, and I now confess openly that I fail utterly to detect in La France the exquisite perfume that most others note. Well, I suppose it is my loss, but I certainly did not calculate that I should be the only person to place that Rose in the second class.

By the twenty electors, with only twenty-five Roses named, the Roses named in this election amount to 154. This is startling enough; but amongst the twelve best, ninety-two Roses actually find a place. Yet again another curiosity: Out of the 154 Roses mentioned, no less than seventy-seven—exactly one-half—have only a solitary vote, and of these seventy-seven no less than thirty-four, though named only once, are yet considered by the nominator A1, or amongst the best twelve, showing at least that there is as great a difference in noses as in eyes, having only one vote. All the electors are nominators of Roses.

I may here mention the electors who have assisted at this election by sending in lists. They are Sir William Bagge; Revs. A. Cheales, J. B. Camm, E. Handley; Messrs. Baker, R. W. Beachey, H. Bennet, Blandford, Cooling, Cranston, Curtis, Davis, J. Ellis, Harrison, Hinton, G. Prince, Robson, Scott, Turner, and Wheeler; and to these gentlemen, and in fact to all who have in any way tended to make these elections either useful or interesting, I tender my sincere thanks.

Mr. R. W. Beachey's list and that of Mr. Curtis I append; the other lists are in the next column. The Roses in italics are those

value and usefulness over the scentless beauties of which we have now so many!

In giving this short arbitrary list of twenty-four it is painful to have to exclude so very many of perhaps equal merit, especially among the Teas and high-coloured Perpetuals.

1, *La France* (Hybrid Tea scent).—The most deliciously scented Rose known. Its fragrance is even more remarkable under glass than out of doors.

2, *Maréchal Niel* (Sweet Tea scent).—Very full, rich, and fruity.

3, *Devoniensis* (Sweet Tea scent).—This and *Socrates* are, perhaps, the two most powerfully scented Roses we have, though not strictly speaking the sweetest.

4, *Goubault* (Sweet Tea scent).—Peculiarly sweet and powerful.

5, *Charles Lefebvre* (Otto Perpetual scent).—Combining an idea of otto of Roses with the old Perpetual.

6, *Madame Knorr* (Otto Perpetual scent).—This like *La France* is most remarkably sweet under glass.

7, *Bessie Johnson* (True Hybrid Perpetual scent).—Very fine and deliciously fragrant.

8, *Aline Sisley* (Fruity Tea scent).—Very striking, resembling the peculiar aroma of Black Currants.

9, *Souper et Notting*, H.P. Moss (Provence Rose scent).—This quite eclipses the old Cabbage scent, uniting with it the richness of the Moss Rose.

10, *Céline Forestier* (Sweet Tea scent).—Emphatically so.

11, *Madame Furtado* (True Hybrid Perpetual scent).—Partaking somewhat of the otto.

12, *William Jesse* (True Hybrid Perpetual scent).—This old Rose may be called the father of this class of scent. Many Roses with its lilac tinge partake also of its fragrance.

13, *Socrates* (Fruity Tea scent).—Nectarine-scented, very powerful and distinct.

14, *Gloire de Dijon* (Fruity Tea scent).—Very sweet and rich.

15, *Narcisse* (Musk Tea scent).—Reminding one also of *Primroses*.

16, *Eugène Desgaches* (Aromatic Tea scent).—This is said to slightly resemble the peculiar odour of Sandalwood.

The following varieties have true Hybrid Perpetual scent:—

17, *Pierre Notting*; 18, *Comtesse de Chabrillant*; 19, *Baronne Louise Uxkull*; 20, *Alfred Colomb*; 21, *Duke of Wellington*; 22, *Antoine Ducher*; 23, *Richard Wallace*; 24, *Madame Victor Verdier*.

Although not belonging to the above set of large type flowers, I cannot close my list without mentioning two delicious little early gems—the *White Banksia* (Violet-scented), and the *Double White Scotch*, with a peculiar kind of otto scent. They are in bloom out of doors several weeks before the above, thus lengthening our sweet Rose tide.—HENRY CURTIS, *Torquay*.

In naming twenty-five Roses for fragrance I suppose the Hybrid Perpetuals and Teas must claim the lion's share of attention, just as they have usurped (and rightly so), the lion's share of our gardens and greenhouses. By the way, did anyone ever enjoy the full fragrance of a Rose who has not caught it under glass just as the first rays of the morning sun are gently warming its petals and tempting it to open its sleepy eye? I fancy not. Certainly I never had such entrancing whiffs from Rose paradise as when I stole a few moments from my quiet half hour before breakfast to take a hasty look round the greenhouse some bright April morning. After breakfast would have been too late. You must let the sun pull out the cork from your bottle of otto of Roses right under your nose, and then!

I have an idea that the H.P.'s and Teas may be divided into four distinct classes, each one giving a perfume of its own. Of course these might be again subdivided, but four are sufficient to mark the main characteristics of each. These, with a few Roses other than H.P.'s and Teas, will in-  
y of notice.

gin with the H.P.'s. These naturally divide into two classes, the first containing the dark crim-  
maroon, and crimson Roses. The fragrance of  
nite distinct from that of the lighter varieties.  
be a richness and body in their perfume which  
; while at the same time they are not so sweet  
lighter Roses.

class embraces the lighter H.P.'s, such as *La  
brand*, &c. These are sweeter than the former,  
the peculiar otto fragrance. Is it not strange

that so few of the medium-coloured Roses (the true Rose colours and carmines), are highly scented? I do not know of one that can fairly be called very sweet with the exception of *Madame Derriex Douville*. *Edward Morren*, *Marquise de Castellane*, *John Hopper*, *Victor Verdier*, and most others of the same shade have hardly any perfume. Can anyone account for this?

Then we come to the Teas and Noisettes. These also one may divide into two classes: First, the sweet Teas, partaking more of the Tea than of the China perfume; second, the astringent Teas, partaking more of the old China scent than of the Tea. These latter are quite peculiar. One can scarcely call them sweet at all, and yet they are refreshing and pleasant, slightly pungent and aromatic.

Into the fifth class we will put those good old Roses that scarcely dare now to show their flowers except in cottagers' gardens and old-fashioned places. But we must give them a place here, for who can deny that they are sweet, though homely?

Class I. Maroon, Dark Crimson shaded, and Crimson H.P.'s (Otto-scented).—*Louis Van Houtte*, best of all; *Ferdinand de Lesseps*, *Princesse Camille de Rohan*, *Pierre Notting*, *Charles Lefebvre*, *Alfred Colomb*, and *Camille Bernardin*.

Class II. Lighter-coloured H.P.'s (Sweet-scented).—*Madame Derriex Douville*; *Madame Knorr*, delicious, something like "old Cabbage;" *La France*, sweetest of all; *Elie Moral*; *Abel Grand* and *Bessie Johnson*, same perfume.

Class III. Sweet Teas and Noisettes (more Tea than China).—*Maréchal Niel*, richest; *Devoniensis*, sweetest; *Gloire de Dijon*, *Céline Forestier*, *Madame Margottin*, and *Souvenir d'un Ami*, on the border.

Class IV. Astringent Teas (more China than Tea).—*Goubault*, good; *Catherine Mermet*, and *Socrates*.

Class V. Roses other than H.P.'s and Teas.—*Old Cabbage*, *Double Scotch*, *Banksian*, and *Common Moss*.—R. W. BRACHET.

#### MERITS OF PEARS.

THE crop of Pears this season has been remarkably good, and perry is consequently cheap, but my notes refer more particularly to dessert Pears, of which we grow a great many varieties. As soils have a great influence on the growth and merits of the Pear, I may state that our soil is light and sandy on a sandy subsoil.

The following are the varieties which I have found to suit us the best:—*Williams' Bon Chrétien*, good crops, fair sampler, and good flavour, on espalier; *Beurré d'Amanlis*, espalier, crop very heavy, large, and fine; on pyramid the crop was also heavy, but fruit not quite so large, and some of them were a little spotted. *Fondante d'Automne*, pyramid, crop very heavy, and fruit very sweet and juicy. I find it keeps longer if gathered a little before it is quite ripe; it is not then so liable to go at the core, and is equally as good in flavour. *Louise Bonne de Jersey*, crop heavy and fruit large and good in flavour, but it only kept about a week after being gathered. It is one of the best Pears of the season, and a sure bearer. *Beurré Superfin*, crop very good and likewise flavour, but some of the fruit a little spotted. *Marie Louise*, crop heavy, and the fruit on espaliers ripened a beautiful yellow; on pyramids not quite so yellow, but the trees were loaded to the ground, but the flavour is indifferent this season, and it did not keep long, nevertheless it is a first-class Pear. *Pitmaston Duchess*, a most noble-looking Pear, many of the specimens being over 1 lb. each; the crop is heavy, and it seems a very free bearer on our soil. I should like the opinion of others who have grown this Pear. *Beurré Diel* is a Pear which succeeds on our soil remarkably well, always producing good crops of beautiful-looking fruit without a blemish; *Triomphe de Jodoigne* also suits our soil well, the crop this year being heavy, and the fruit large and fine; *Doyenné du Comice*, a most delicious Pear, and succeeds best with us as a standard, from which we have the largest and finest fruit; *Knight's Monarch* succeeds well with us as a pyramid, producing beautiful specimens and heavy crops; it is a first-class late Pear. *Zephirin Gregoire*, good as a pyramid; crops this year heavy. *Swan's Egg*, first-class here as an espalier, each branch looking like a string of Onions; but the fruit is not so large as it might have been had we thinned them more. *Easter Beurré*, good as a standard, crops heavy, and the fruit without a spot; the trees are also remarkably healthy, but not so with pyramids and espaliers, for the fruit has been very much cracked and spotted, and many of the trees are also cankered and stunted

in their growth. I am of opinion that the stock on which this Pear is grafted has a great deal to do with its well-being. Will anyone give their experience on this point? I am inclined to say the Pear stock is the best, and allow the tree to develop itself. General Todtleben succeeds well as a pyramid, but the largest specimens were on espaliers. Hayshe's Prince of Wales is this season magnificent on espaliers, good specimens of fruit, and completely covered with very dark russet. No Plus Meuris, very prolific as an espalier, fruit rather small, but should have been thinned more freely. Bergamotte Esperen, first-class as a pyramid, being a sure bearer of delicious late fruit. Beurré Rance, good as an espalier, but the fruit on some of the trees has cracked badly. Is it general this season? Vicar of Winkfield, heavy cropper as a standard. We have a large standard tree which was left in the old kitchen garden here which is so loaded with fruit most seasons that we are obliged to support the branches with props; a good stewing Pear, and passable for dessert when Pears are not very plentiful. Josephine de Malines, good here as a standard, but so far it has been poor as an espalier, and the fruit small. Jean de Witte, a good bearer of medium-sized fruit, but many of them spotted this season. Louise Bonne de Printemps, crops good, fruit medium in size, and free from any spot. Black Worcester succeeds well here on espaliers, producing fine crops of large fruit; it is a first-class stewing Pear, a sure bearer, and keeps well.

The above are a few out of about sixty varieties that have this season carried heavy crops; the others have carried more or less, but those named have done the best. As I wish to add to my collection I should be obliged for a few notes from any of your correspondents who have a similar soil to mine. Perhaps Mr. Douglas would favour us with a few notes, for I fancy his soil and ours pretty nearly correspond. Pears I find are not keeping well this season; they are soon over when they begin to ripen, and the long-continued rains, with the absence of sun, has impaired the flavour of many of them.—J. A., Hill Grove, Kidderminster.

#### DIAMOND PEACH.

Mr. LUCKHURST does not appear to cultivate this Peach, else he would probably have enumerated it in his list as one worthy to be cultivated by even those who are restricted to two or three varieties.

It has three points to recommend it—First, it will set its fruit without protection better than any other variety; second, it is a moderate grower, devoid of those sappy shoots so common in other varieties; and lastly, it comes in between Early York and Royal George, and is, therefore, a great desideratum to all who have to keep up a supply of this luscious fruit from the open air. It is a variety that also comes very early into bearing, my own trees fruiting the third year from the bud, while other favourite varieties were barren. The fruit is of large size, beautifully coloured on the exposed side, and equal in flavour to other well-tried sorts. I believe it is an introduction by the Messrs. Veitch of Chelsea, and is worthy of more extended cultivation.

After marking results here and elsewhere, I can confidently recommend the following select list for outdoor culture:—Early Beatrix, Early York, Diamond, Royal George, Grosse Mignonne, and Noblesse. Can anyone recommend a variety later than the above-mentioned which would stand a chance of ripening in the midland counties? Lord Palmerston will not do so.

The soil here is very sandy with sand as a subsoil, therefore not at all suited to either Peach or Plum culture, but by rich mulchings and plentiful supplies of water during the flowering period I invariably secure moderate crops of fruit.—A. W., Heighington, Lincoln.

#### BRIAR STOCKS FROM CUTTINGS.

BEING recommended in the *Journal of Horticulture* last autumn (October 15th, page 389), Briar stocks put in as cuttings with a heel, I procured some which were inserted during November, and are now lifted with roots superior to anything I have seen on the Briar previously.

Having found the roots so superior to those made on the lifted stock, I venture to note the result, although I have not been so successful in the number struck as Mr. Turtle. Sixty-eight were put in, out to 8 feet in length. The budding was done in May. Thirty are now planted in prominent places

with nice heads, eight budded but have not made heads fit for planting this year, twelve unworked, and eighteen deaths, mostly owing, I have no doubt, to unripened wood, as the Briars were cut from the middle of thick hedges, not being able to procure them from positions more conducive to ripened wood.—R. O., Castle Gardens, St. Fagans.

#### DOUBLE CLARKIAS.

CLARKIAS are amongst the most effective and useful of our hardy annuals, and improvements in the colour and form of the flowers are continually being made. Double varieties have long ago been offered to the public, but these at the best have been but semi-double, and the plants generally have proved of loose habit. Examples, however, which were submitted by Mr. Hardy of Bures to the Floral Committee of the Royal Horticultural Society on July 7th, were undoubtedly *bond fide*

Fig. 104.—Double Clarkias.

double flowers, and as such they were awarded first-class certificates. The flowers were also closely arranged on the spikes, giving them a massive appearance quite dissimilar to the ordinary type of semi-double varieties, and suggesting their usefulness for affording cut blooms. The engraving gives a faithful representation of the spikes as then exhibited; and if the varieties prove constant they must be regarded as great acquisitions amongst easily-grown border flowers. Mr. Hardy exhibited them in two varieties—Purple King and Salmon Queen, and they have certainly just claim to be considered as reigning monarchs in the Clarkia world.

#### CONCRETING VINE BORDERS.

Mr. PRACH inquires whether the Vine borders at Arlinton and Potholm were concreted. They were not concreted, but they rest on a subsoil of gravel which is better than any concrete. A foot of drainage was placed in the excavation, and on this turves were placed with their grass sides downward to keep the drainage clear from the soil. At Potholm the bottom of the border before putting in the drainage was excavated in a series of diagonal trenches 4 feet apart, bringing the ridge between each to a sharp apex, and in each trench a row of drain-pipes were laid, having a sharp fall and communicating with a main drain at the extremity of the border. Drainage

was therefore provided for in the most effective manner. The bottom of the border when excavated was the exact counterpart of a ridge-and-furrow roof.

Now where concrete is necessary there can be no better base for it than these diagonal ridges and pipes laid between them. There cannot then—the falls for the drains being right and the outfalls clear—be any possibility of the border becoming water-logged.

I am of opinion that on a sandy or gravelly subsoil, or also on the sand or limestone formation where the subsoil is porous, that it is not necessary to concrete the bottoms of Vine borders. Provided the water can pass away freely concrete is not necessary; but where it cannot pass away—as in a bed of clay, for instance—then I should certainly have a ridge-and-furrow bottom concreted and drained, with an effectual outfall for the water which I should apply liberally in the growing season.

There is very little doubt but that Vines have suffered greater injury by drought than by water, and that concreting and drying the borders on a porous subsoil in dry districts has in many instances been carried to excess. Where Grapes are prone to shank it is worth while considering whether dryness of the roots is not one of the contributing causes. I am acquainted with a fine vineyard which every year produces many shanked berries, but in no year did I see them in a worse condition than in 1868, when the year's rainfall of the district was under 20 inches, whereas in 1872, when the rainfall was nearly double that amount, shanking was much less inveterate.

I do not dispute that shanking is fostered by a water-logged soil; but I suspect that the effects are not widely different whether the spongioles have rotted by wet or shrivelled by drought.

The Vine in its nature is a water-loving subject. Its rapid succulent growth, its expansive foliage, and, more than either, its juicy fruit, all cry aloud for water. I have very little doubt that if a Vine in its growing state—roots, wood, leaves, and fruit—were analysed, that 75 per cent. of its bulk would be water. If that is so its wants are clearly foreshadowed, and water it must have ungrudgingly if it is to flourish vigorously. The best proof that that is sound theory is the support which is afforded by actual practice. I have only been able to grow heavy crops of Grapes by heavy waterings in the growing season. But there must be efficient drainage. It is not primarily a question of water but one of drainage, for if the latter is perfect the supply of the former can scarcely be too great.

But the mechanical nature of the soil must be taken into account. Some soils are more retentive of moisture than others, and a weight of 20 inches of rain on one soil may in its effects be represented by 40 inches on another, and *vice versa*—that is, the drainage being the same in two instances the Vines in one border will need double the amount of water over those in the other, solely by the difference in the mechanical nature of the soil; and it is here that the intelligence of the gardener must be exercised. We may lay it down as a rule that the Vine is a moisture-loving subject; that it must have water liberally, but the precise meaning of "liberal" must be left to individual interpretation to be governed by the local circumstances of each case.

Concreting, I have said, is not necessary on a porous subsoil where water can pass away freely, and injury has often resulted by concreting on such soils. It is all very well to say that we concrete to prevent the roots passing into a poor unnutritious soil, but it must also be remembered that concrete not only prevents the roots descending, but it also prevents the earth moisture ascending. It completely arrests capillary attraction. The summer's sun cannot draw up the winter's rain from the reservoirs of the earth through a concrete roof, and by that cause alone Vines suffer injury in dry districts.

The roots of Vines when they pass into an ungenial inert medium are generally driven there; they are in search of food and moisture, which they cannot find near the surface. There need be no fear of injury arising to Vines by the descent of their roots into unsuitable soil if what they need is afforded them near the surface. They do not enter the inert soil because they like it, but because they penetrate it in search of the matter which they need, and the more such soil is deficient in the food of which they are in search the further will the roots ramify. The natural preventive is to supply food on or near the surface of the border, and if sufficient moisture accompanies it to render it soluble, then the roots will not

wander into bad soil and receive injury in search of what they need.

There are cases where concreting is necessary, but not to prevent the roots going out of their proper compost, but as a means of conducting superfluous water into the drains. I could give some instances of the use and abuse of concrete. I have this year seen the concrete of a Vine border laid bare, and on it rested 8 inches of water. The border was nearly on a level, and what drains there were had become choked by sediment. Sediment traps are exceedingly useful, but extremely dangerous. They are not uncommonly placed by the side of the gravel walk, under which the main drain—the Vine-border catchwater—is conducted. The loose gravel is washed through the grating, and is left in the sediment box until it reaches the level of the drain, and is then conducted into it; and thus are Vine borders, by neglect of timely and systematic attention given to the drains, made waterlogged by the very medium that was provided to keep them dry. I have had to take out two Vine borders which had become waterlogged by the simple matter of permitting the drain pipes to become choked with the surface washings of gravel, &c. In both these instances sediment boxes had been provided, but their contents had not been regularly removed, and hence the mischief. I know at this moment a Vine border which has become sour by the same means, and the border will have to be renewed before good Grapes can be obtained. It would have been far better that those borders had not been concreted and drained at all than that the drains should have been neglected. It is with good reason therefore that I say, Look to the drains.

I am well acquainted with a splendid range of vineries which had been erected, and borders made regardless of cost. The site was not wet, and the rainfall of the district is exceptionally low, yet these borders were concreted, and I believe they were never watered; the Grapes as a consequence were poor and unsatisfactory, so much so that the gardener relinquished his charge. A different system was then adopted. The concrete was broken up, and heavier soil incorporated with the border; heavy surface dressings of manure were given, and water copiously applied in the growing season; and the same Vines have since produced splendid crops of fruit, which are a source of pride of the owner as they are a credit to the gardener. Some of the finest Grapes that I have seen have been produced by borders which have been attended to by rich dressings of manure with occasionally fresh soil and bones at the top, rather than by a smooth layer of lime, tar, and ashes at the bottom.

Yet on the other hand I have known the concreting of Vine borders in conjunction with an effective system of drainage decidedly beneficial. Seven years ago a border site was excavated in a soil which approached clay. Drainage was put in—that is, a foot of stones, &c., and the soil made of a suitable compost, yet the Vines did not flourish. The berries shanked and did not colour well, and the foliage was much attacked by insects. The Vines were eventually lifted, and the soil was taken out. A layer of concrete was placed on the drainage, and drains made with sharp falls and clear outfalls; the border was enriched on the surface, and water given freely; and for the past two years the crops have been of the very first order of merit. In this case I doubt not that the manure at the top has been of greater benefit than the concrete at the bottom, yet the two in conjunction have proved the practice to have been correct and good.

I can quote another instance. A clergyman was most anxious to have good Grapes, but his border site was in a natural hollow and the soil was clay. An excavation was made and a good border compost put in, but the Grapes were not good. The natural hollow was simply a water trap, and a layer of concrete was placed on the surface of the border—previously taking up the Vines—another border being built entirely above the ground level, and the crops have since been most superior. This border is heavily top-dressed annually, and frequently watered with sewage until it passes through the mass of soil and out by the drains.

This record of practice may be useful at a time when Vine borders are in the course of construction and renovation. It tends to prove that concrete is useful where not abused. When it is necessary it should be laid with a sharp gradient and in connection with drains which must be kept in order. If the site is very low and the soil heavy and wet, it is advisable that the border be made entirely above the ground level. But in many, and I am inclined to think in most, instances concrete is not necessary, and of infinitely greater moment is

the enriching of the surface of the border, and keeping it moist in the season of growth. Vine roots are like sheep, they will not wander far from a good feeding-ground; but when the pasture is bare and affords them no support it is difficult to prevent them passing a prescribed boundary.—A NORTHERN GARDENER.

## ROYAL HORTICULTURAL SOCIETY.

DECEMBER 1ST.

**FRUIT COMMITTEE.**—Henry Webb, Esq., in the chair. Mr. Jones, the Royal Gardens, Frogmore, sent three very handsome specimens of Smooth-leaved Cayenne Pines, each weighing about 8 lbs., which were awarded a cultural commendation. Messrs. W. Paul & Son, Waltham Cross, sent six dishes of Pears, consisting of Jewess, Comte de Flandres, Emile d'Hayat, Broom-park, Dr. Trousean, and Beurré Beauchamp. He also sent a seedling Pear without a name, which was of a good but not superior flavour. Messrs. Kinmont & Kidd, nurserymen, Canterbury, sent a seedling Apple from Court of Wick crossed with King of the Pippins, but its flavour was not distinct; a seedling from Devonshire Quarrenden, very similar to the parent, but the flavour was inferior; and Swinard's Seedling, also a seedling from Devonshire Quarrenden, which was not of remarkable flavour.

Four seedling Apples were received from Mr. Charles Arnold of Paris, Ontario, Canada. They were raised from Northern Spy crossed with mixed pollen of Wagner and Spitzberg. No. 1 was very acid. No. 2, a firm-fleshed and rather acid Apple. No. 3, tender flesh and slightly sweet, but not good. No. 5 is very tender-fleshed and sweet, but the Committee did not consider either of them worthy of a certificate. A letter of thanks was voted to Mr. Arnold for sending the fruit. Mr. J. Charlson of Tonbridge Wells sent a seedling Pear of a Bergamot shape, which had a powerful flavour of Gansel's Bergamot and very gritty flesh. It was thought that it might be better in another season. Thomas Laxton, Esq., of Stamford sent a seedling Apple called The Boy's Delight, a small striped Apple of very tender flesh and rather sweet flavour. Boothby's Seedling No. 4 is also a very tender-fleshed variety, which was thought to be a good cooking Apple. Boothby's Seedling No. 8, a medium-sized, oblate, yellow Apple of tender flesh and very briskly flavoured, and was thought to be a good Apple for sauce. The Doctor is also a medium-sized Apple but of no character. No. 7, a seedling from Cox's Orange Pippin fertilised by Stamford Pippin. No. 8, a seedling from New Hawthornden crossed with Stamford Pippin. No. 9, very disagreeable.

There were others, but they like the preceding were inferior to many others in cultivation. Mr. Trussler of Edmonton sent a small seedling Apple which did not possess any special merit.

**FLORAL COMMITTEE.**—Dr. Denny in the chair. Only a very few exhibits were brought before the Committee on this the last meeting of the season, the weather being altogether too cold for the safe transit of tender plants. No certificates were awarded—the numbers awarded at previous meetings during the year being ninety.

Mr. Clarke, florist, Twickenham, sent a hundred plants of Cyclamens, well-bloomed sturdy plants, with good-shaped flowers in a great variety of colours. Some of the dark colours—crimson, magenta, and purple—being very rich, and whites pure. This charming class of plants are evidently as valuable for winter as they are for spring decoration. Mr. Clark also exhibited a selection of eighteen Cyclamens of vigorous habit, and with exceptionally large flowers, but limited to the lighter colours. For these collections a vote of thanks was deservedly awarded.

Messrs. Waterer & Sons, The Nurseries, Bagshot, exhibited plants of *Thuja picea borealis aurea variegata*. The plants were small but of robust habit, and with their vigour a constant variegation of golden sprays. For this very promising ornamental lawn Conifer the thanks of the Committee were awarded.

Mr. Westcott, The Gardens, Baby Castle, Darlington, exhibited a new hybrid Solanum Princess of Wales, a cross between Prince of Wales and Yellow Gem. It is a highly ornamental variety, the pyriform fruits being of the brightest yellow, 2½ inches in length and an inch in diameter, the foliage being 5 inches in length by 4 in breadth. This vigorous hybrid is strikingly effective, and cannot fail to be useful as a winter decorative plant. A vote of thanks was awarded.

**IMPROVING THE FLAVOUR OF FRUIT.**—It is not a little surprising that those who would enjoy the full flavour of Apples and Pears do not pay more regard to the temperature of the fruit when placed on the table. Many, if not all, sorts of Pears are immensely improved by being subjected to a temperature of 100° for an hour or two previous to being eaten. To take the best kinds of fruit direct from the fruit-room, which may not be half a dozen degrees above the freezing point, is not doing justice to the fruit or, I must add, to the

owner. Let anyone test fruits of any good sort of Apples and Pears, some "stinging cold" and others artificially warmed, and note the superiority of the latter, which is to my mind conclusive.—A CITY MAN.

## PORTRAITS OF PLANTS, FLOWERS, AND FRUIT.

**DELPHINIUM CASHMIRIANUM.** *Nat. ord., Ranunculaceae. Linn., Polyandria Trigynia.*—Flowers purple. "About a dozen species of Delphinium inhabit the Himalaya Mountains, of which the present is one of the handsomest. All are found at considerable elevations; and some of them that come from the loftiest spots, as *D. Brunonianum*, *Royle*, exhale so strong a musky odour that the ignorant mountaineers attribute the odorous secretion of the musk-deer to the animals' feeding on that plant, and of the *D. glaciale*, which is equally strongly scented. No such odour has been attributable to *D. Cashmirianum*, though it too occurs at great heights, ascending from 12,000 to 15,000 feet in the Western Himalaya, where it ranges from the longitude of Kumaon to that of Kashmir, abounding in grassy valleys, &c. The subject of this plate was raised by J. Anderson-Henry, Esq., from seed sent from the north part of Kashmir by Dr. Bellew during his journey to Kashgar with Mr. Forsyth, and it flowered well at Hay Lodge, Trinity, in July of the present year."—(*Bot. Mag.*, t. 6189.)

**MADEOVALIA DAVIESII.** *Nat. ord., Orchidaceae. Linn., Gynandria Monandria.*—Native of Peru. "This fine *Maedevalia* is remarkable for its size and colour (yellow). It was discovered by Mr. W. Davis near Cuzco in Peru, and was flowered by Messrs. Veitch in August of the present year; the plant here figured bearing twenty flowers. Singular as the colour is, it is probably very variable. Reichenbach describes the perianth-tube as 'whitish yellow, with a blackish-violet great eye-spot on each side;' and the other parts of the flower as 'yellowish-white outside and of the deepest splendid orange inside;' colours not at all repeated in our specimen."—(*Ibid.*, t. 6190.)

**TULIPA EICHLERI.** *Nat. ord., Liliaceae. Linn., Hexandria Monogynia.*—Flowers dark crimson. "It belongs to the group *Scabriscapae* of Baker, all the species of which are natives of the Mediterranean region, from Italy eastward to the Levant, and of the Caspian region extending to Turkestan. This, indeed, is the principal area inhabited by Tulipa, for very few of the species (nearly fifty are described), reach the extreme east of Asia; only one is found in India (*T. stellata*, Hook.), and that is confined to the North-eastern Himalayas, and one (*T. edulis*, Baker), in Japan. The *T. Eichleri* was discovered by the traveller whose name it bears, in the Baker district of Georgia."—(*Ibid.*, t. 6191.)

**HETERANTHERA LIMOSA.** *Nat. ord., Pontederiaceae. Linn., Triandria Monogynia.*—Flowers violet-blue. "A very pretty water-plant of wide distribution, inhabiting very wet marshes from Virginia to Venezuela and Brazil, and likely to become a favourite for cultivation in tropical aquaria, where it may be grown in pots standing in the water. As far as I am aware, but one species of the genus *Heteranthera* had hitherto been cultivated in Europe—namely, the *H. graminea* of Vahl, a very insignificant submerged species, a native of North America, which was introduced into the Glasgow Botanical Garden half a century ago along with *Vallisneria spiralis*, and is well figured in Hooker's 'Exotic Flora,' tab. 94, under the generic name of *Leptanthus*. About a dozen species of the genus are described, some of which, having spikes of blue flowers, are no doubt worthy of cultivation. Seeds of *H. limosa* were sent from Santa Martha, in New Grenada, to the Royal Gardens by M. Endres, which germinated and flowered in the short space of a few weeks. M. Endres states that it grew in brackish pools. It flowers at Kew from May onwards. It is a plant of very wide range, from the warm temperate region of the United States (Illinois and Virginia), to Bahia in Brazil."—(*Ibid.*, t. 6192.)

**OXALIS ARNICA.** *Nat. ord., Oxalidaceae. Linn., Decandria Pentagynia.*—Flowers purplish pink. "The genus *Oxalis*, once a favourite amongst amateur horticulturists, has of late years experienced the neglect that has overtaken so many interesting classes of herbaceous plants. Upwards of 180 species, chiefly natives of South Africa, have been figured as under cultivation in Europe. By far the larger number of these are contained in the beautiful Monograph of the genus published by the elder Jacquin in 1794, from specimens cultivated in the Imperial Gardens at Vienna. In 1808 fifty-eight species were in the Kew collection, where there are now only thirty; and no



species has been figured in this magazine for a quarter of a century, when (1850), the lovely *O. elegans* of the Andes appeared. Happily a love of the genus lingers amongst scientific horticulturists, to one of whom, G. Munby, Esq., I owe the opportunity of figuring the present species. *Oxalis arenaria* is a native of Chili, where it is widely distributed, being found in sandy pastures near Valparaiso, Santiago, and other localities. It has also been gathered on the Andes of Bolivia by Mandon, in the neighbourhood of Sorata, at an elevation of between 8000 and 9000 feet above the sea-level. The specimen here figured flowered with Mr. Munby in March."—(*Ibid.*, t. 6193.)

**CRASSULA BOLUSII.** *Nat. ord.*, Crassulaceae. *Linn.*, Pentandria Monogynia.—Flowers white and crimson. Native of South Africa. "It was discovered by Mr. H. Bolus, near Graafreinet, who sent both living and dried specimens to Kew. As a species it is closely allied to *C. Cooperi* ('Regel Gartenfl.', 1874, p. 36, t. 786), a widely distributed Cape species, but differs in the less straggling habit, much longer and narrower radical leaves, and in the dark blotches on the foliage. Plants were sent to Kew by Mr. Bolus in 1874, which flowered in the Succulent House in July of the present year."—(*Ibid.*, t. 6194.)

**APPLE**—*Lane's Prince Albert*.—"It is a variety which has been well proven in certain districts, and which well deserves to be more widely cultivated. It was raised some years since by Messrs. Lane & Son of Berkhamstead, from the Russet Nonpareil crossed with Dumelow's Seedling, and is remarkable both for its excellent quality as a culinary Apple and for its prodigious bearing qualities, even the smallest trees being usually densely laden with fruit. The fruit is large, shortly conical or ovate, in the larger samples 1½ inches in circumference, and measuring 6 inches from eye to stalk, even and regular in outline, with broad ribs round the crown. The skin is smooth, of a fine grass-green, covered with appreciable bloom, changing as it ripens to clear, pale, greenish-yellow, flushed on the exposed side with crimson-red, and also marked with short, deeper, crimson streaks. The eye is closed, with small, pointed, reflex segments, which are set in a deepish, somewhat angular basin. The stalk is about half an inch long, inserted in a deep funnel-shaped cavity. The flesh is tender, juicy, briskly and agreeably acid with a pleasant flavour. In this variety we have a culinary sort which can be safely recommended not only for its bearing and keeping qualities, but also for its general excellence, in respect to flavour and texture, regarded as a kitchen Apple. The fruits are heavy, and have a solid feel about them."—(*Florist and Pomologist*, 5 a., viii., 233.)

## SLAUGHTER OF SMALL BIRDS FOR LADIES' HATS.

IF on reading the enclosed extract you feel as indignant as we do, will you find space for it in the Journal? It is such a horrid fashion that everyone should do what they can to check it:—

"The fashion now so prevalent of ornamenting ladies' hats and bonnets with small birds has given such an impetus to the activity of the birdcatchers, both here and in France, as to cause well-grounded fears for the annihilation of our favourite little songsters. This was forcibly pointed out in a case which came before the Dover Bench yesterday, in which two men were charged with trespass. Upon them were found no less than fifty-one dead skylarks and a large number of linnets, thrushes, bullfinches, &c. A gentleman connected with the Customs at Dover stated that it was well known that a large premium was paid to men like the prisoners for these birds, and that it was within his cognisance that during the past fortnight no less than two thousand of the brightest-plumage birds from Normandy passed through Dover on their way to a firm of milliners in London, their destination evidently being to ornament the hats and bonnets of Belgravian ladies. The Bench stated their determination to punish severely all future offenders, and ordered their clerk to make a representation on the subject to the Home Secretary.

"We must try and stop the demand. We must grapple with the cause of the evil, which is to be traced to the present fashion of affixing the bodies of skylarks, thrushes, linnets, &c., to ladies' hats by way of ornament—a fashion which is inartistic, unclassical, and vulgar, and which displays a vitiated taste."—M. G.

[No words would be too strong to condemn the fashion

held up to scorn by the writer of the above letter. The fashion is one of those masculine changes condemned by good taste. We have noticed in country towns, as well as in London, that birds are worn by those who at other times wear in their hats huge flowers, bunches of Grapes, and clusters of Cherries, all of the largest size and deepest colours. All this is most vulgar, yet we should not feel that such error is within our province to condemn; but the slaughter of small birds justifies us in remonstrating and asking our readers to aid in suppressing it. Those small birds are some of the gardeners' and farmers' best friends. The goldfinch, the linnet, the hedge sparrow, the lark, and others live upon the seeds of weeds and insects, and of all of them we have seen hundreds of skins lying in the windows of ladies' hat-makers. Let every head of a family forbid their use, and let every girl adopt exclusively that utterance of true taste—

"Flowers and ribbons small and fair,  
Are round my hat and in my hair."

—EDS.]

## NOVELTIES IN THE ROYAL GARDENS, KEW.

FLOWERING in the Succulent house at the cold end we find a member of the elegant genus *Bomarea*, which, with a query attached, is named *B. Jacquesiana*. It resembles in some degree the very handsome *B. chontalensis*, introduced about four years ago by Mr. Wm. Bull, having similar rose-coloured outer segments with a few black spots. It is, however, quite distinct, the flower being almost half as long again and of less globular outline. The leaves of this are very bold and fine-looking—far more so than those of *B. Caldasii*, of which there is a plant on the opposite side of the door. They are growing against the end of the house, and form a good covering for the glass, which without some kind of greenery would look painfully bare. Both are planted out, and do remarkably well with but trifling attention. The *Bomareas* are rare in cultivation, although they are pretty well known as handsome twiners. One species, *B. edulis* of St. Domingo, supplies the *Tapinambours blancs*: these are the tuberous ends of the roots, which after being boiled are eaten as Potatoes.

In this house a plant of the *Clivia Gardenii* is beautifully in flower, and coming in regularly at this season it seems to be worth attention. The leaves are much like *Imantophyllum* minimum, to which it is nearly allied, but with flowers more like *Cyrtanthus*. They are produced in large umbels, and are of an orange-red colour with green tips. The cultivation for *Imantophyllum* suits it exactly. *Aloe ciliaris* deserves a passing notice. It is a slender-growing species, which may be trained as a climber. Spikes of flowers come on every branch; they are not too large, and having the fiery colour of *Tritoma* at once strike the attention. It is the most brilliant-flowered of all the Aloes.

*Olea fragrans* is flowering in the Economic house, and possesses a perfume of the most delicious description. The flowers are small and of a pale yellow colour, but grow many together in numerous clusters. They are used in China for scenting teas. That called *pekoe* is a green tea much prized for the scent imparted to it by these flowers. The species is well worth growing in conservatories for its perfume. It is easily grown and succeeds on its own roots, but is perhaps harder grafted on Privet. A plant so grafted has withstood the last two or three winters against a wall.

In the Orchid house we find a good pan of *Pleione laganaria*, perhaps the most beautiful of the Indian *Orocucos*. About twenty flowers are fully expanded. *P. maculata* is also in bloom. *Cirrhopetalum Medusae* is extremely curious, and of similar character it would be difficult to find anything else. The flowers are numerous on short spikes, and the sepals are lengthened into long threads, hanging down like coarse hair. *Pachystoma Wightii* is a pretty plant from India. The leaves are grassy, accompanied in this case by a single yellow flower the size of a Primrose, borne on a stem about a foot high. We have before drawn attention to *Eulophia guineensis*; it is again in flower, and without doubt is a valuable terrestrial Orchid, the flowers lasting long in perfection, and being of distinct colour and form. They are produced on erect stems about 2 feet in height. It is a native of West Tropical Africa, and requires warm treatment. Among *Cypripediums* are *C. Stonei*, the rare *C. pardinum*, *C. concolor*, *C. Boissii*, *C. Sedeni*, and of the commoner *C. insignis* some good masses are well in flower. *Angracum pellucidum* is always attractive from its beautiful glossy foliage. Its beauty is now further

enhanced by many pendulous spikes about a foot long, bearing a large number of white translucent flowers. It is well adapted for growing in baskets. A yellow-flowered form, more rare than this, is sometimes met with.

### NOTES AND GLEANINGS.

THE OXFORD BOTANIC GARDEN we do not consider too small if it were differently arranged. Certainly it would do violence to the feelings of everyone who knows its history to have it abolished and another established elsewhere. Such a change is not needed.

— We regret to have to announce the DEATH OF M. ALPHONSE MAS of Bourg-en-Bresse, at the age of fifty-nine. M. Mas devoted almost the whole of his life to the study of pomology. In his garden at Bourg were collected almost every variety of hardy fruits he could procure, and there he made his observations which formed the groundwork of *Le Verger*. We are especially saddened at the occurrence of this event. It was only in September last that the writer of this met his old friend at the meeting of the Société Pomologique of France, which was held this year at Ghent, and where he as President of the Society performed all the duties of his office. M. Mas was a man of gentle and amiable disposition and a sincere friend, and his loss will be much regretted by a large circle, among whom he was well known and esteemed.

— THE FLOWER MISSION has been very successful among the patients of the metropolitan hospitals and the poor in the east of London. It is worked from depôts where the flowers are sent, and they are arranged in neat little bouquet-holders of paper, with a text of Scripture written on them, and distributed in hospitals, workhouses, and to the sick poor in their homes. Two central depôts were opened in March at Mildmay Park and Spitalfields, and in the flower season the average number of bouquets sent out from them was from 8000 to 4000. The movement has attracted much attention among ladies, and no doubt its action will be widely spread when the spring flowers come in. In support of the funds of this Mission a bazaar, under the patronage of the Duchess of Cambridge and the Duchess of Teck, was opened at the Hall, Gloucester Road, Kew, and attracted a large number of visitors.

— At the Birmingham Cattle Show Messrs. Carter & Co. have a stand of AGRICULTURAL AND HORTICULTURAL PRODUCTS, all very fine, grown from seed raised by them and contributed by the growers. Among the horticultural specimens there are some extraordinary Carrots, Parsnips, Potatoes, &c., in endless variety and of the finest shapes and quality. Onions, too, are in abundance, and the form and size of some of them would have astonished gardeners of no very remote period.

### HEATING WITH PEAT.

In answer to your correspondent "W. W." (page 482), I may state that my experience of peat or turf for heating hot-water boilers has been very unsatisfactory. Of course much depends on the quality; spongy turf cut from the surface of the bog is all but useless except wood or coke is used with it, and even then I have found a great difficulty in keeping up a regular temperature in frosty weather. There is a hard black peat, generally the lower spits of a turf bank, and where all vegetable matter has been long decomposed, which suits much better, and for a small house might maintain a pretty fair temperature without much trouble.—A. MCINTOSH, *Gortmore*.

### OUR BORDER FLOWERS—SISYRINCHIUMS.

THESE are hardy and half-hardy plants of great beauty, and are well adapted for spring-garden and border culture. They are widely distributed, and are found in many parts of the world. The hardy kinds stand through our winters without injury. They succeed well in a well-drained situation, extreme moisture being fatal to their well-doing. If the soil is of a strong heavy nature it should be removed altogether, and be replaced with the following compost—good sandy loam and sandy peat in equal quantities, with a little well-decomposed leaf mould and a sprinkling of charcoal dust and sand mixed well together. The soil should be made a little firm before planting. The plants are easily increased by division of the roots after they have matured their growth. The half-hardy

kinds must be protected through the winter in a dry cold pit or greenhouse where they can be kept from frost, and they may be planted out in the summer, but should be taken in before the frosts set in. Their splendid diversity of colour and graceful habit well repays any labour bestowed upon them.

Among the hardy kinds none are more beautiful than *Sisyrinchium grandiflorum*, its colour being crimson purple. It is an early bloomer and grows about a foot high, and when well established it produces a charming effect. *S. grandiflorum album* is equally attractive, its lovely white blooms contrasted with the foregoing being beautiful indeed. *S. striatum* is one of the tallest of the family, not so bright in colour as some of the species, but is still a very desirable border plant and continues long in flower. *S. convolutum* is one of the handsomest of the whole family; when well established its large yellow flowers tell us at once that it is worthy to stand high in our estimation; it should be in all collections of herbaceous plants. *S. odoratissimum* should have a place on account of its delicious perfume; it is of dwarf habit and is rather tender, and should be protected through the winter. *S. aniceps* is the commonest and the dwarfest of the tribe. I have seen it very beautiful in early spring used as an edging plant. It soon establishes itself, for it seeds freely and in some places becomes troublesome as a weed.

I have sometimes known the early blooms destroyed by our spring frosts, which should be guarded against in our unsettled climate. A few hoops of small wire made with prongs to run into the ground in the form of a bee hive covered with coarse canvas is a good protection for these plants, and the covers are easily removed when not required. It is not my intention to enumerate the family, or I might name many more kinds worthy of the cultivator's notice.—VERITAS.

CARTER'S GREEN GAGE TOMATO.—I have this season grown the above Tomato along with three others, and I find it quite an acquisition. The other three varieties were Large Red, Excelsior, and Arlington. It ripens under the same treatment quite as early as Large Red, and those who have tasted it here consider it superior in flavour to that variety. I likewise consider it more productive than either of the other varieties, although the fruit is smaller. These notes refer to the culture in pots and grown under glass. I have it planted out along with the other varieties, but the season has been so unfavourable for outdoor Tomatoes that I cannot speak decidedly on its merits outdoors.—J. ANDERSON, *Hill Grove, Kidderminster*.

### PLANTS FOR CUT FLOWERS AND SPRAYS.

No. 7.

ALLIUM.—This is a genus of very valuable plants. *A. fragrans*, white striped with green, is delightfully fragrant. *A. magnum*, white, is also sweet-scented. They flower during June, and are quite hardy, doing well in ordinary soil, but best in sandy loam enriched with leaf soil and well drained, planting the bulbs about 8 inches deep. The flowers keep well in water, continuing a long time in bloom. *A. ellatum*, white, and *A. azureum*, blue, are very pretty; *A. moly*, canary yellow, is also very free and fine; *A. triquetrum*, white, drooping, is very desirable and earlier than most of the species. These showy plants ought to have a place in every garden.

SCHIZOSTYLIS COCCINEA.—This is a *Gladiolus*-like plant, and has deep scarlet flowers. I had plants this season with flowers in July; the plants were moved to a greenhouse in the middle of October, and will flower as in previous years—all through the winter. It is, however, quite hardy, but if its flowers are wanted in winter a light airy position in a greenhouse must be given. The plants are placed outdoors in May, potted in June, and duly supplied with water. They flourish best if under rather than over-potted. Good turfy loam three parts and one part of leaf soil is a suitable compost, but I add a little peat and silver sand, finding that all *Irids* are improved by peat. For growing outdoors a sheltered position is desirable, and a sandy well-drained soil. It ought to be grown by everyone wishing flowers to cut in late summer and autumn, also during the winter in a greenhouse.

ORNITHOGALUM.—These flower in spring or early summer, and are useful; they are best treated as cool greenhouse plants. *O. thyrsoides*, yellow; *O. arabicum*, white with dark centre, and sweet; and *O. Bergii*, white and green, will be suffi-

cient for pots. *O. pyramidale* and *O. umbellatum* are suitable for borders. Light fibrous loam, with the compost named for *Schizostylis*, will be suitable for *Ornithogalums*. Free watering during growth is necessary, keeping the soil just moist when the plants are at rest.

**LEUCOCORUM.**—*L. vernum*, which blooms in spring (March) has the scent of a Wallflower, and is very beautiful from its pearly whiteness and tips of clear yellowish green. *L. astivum* is also white tipped with green, and flowers in June or earlier. *L. autumnalis* has bell-shaped flowers, white tinted with rose, and flowers in September. Like monster Snowdrops the Snow-flakes are very valuable for cutting from, and should be grown extensively. They will grow freely in any ordinary garden soil, and delight in moisture. Plant 3 inches deep in an open situation.

**ERYTHRONIUMS.**—These have very beautifully-spotted leaves, which are useful and force readily; the flowers are also useful, and come-in in March or April. These plants will grow almost anywhere, doing best, however, in light loamy soil with leaf soil and peat.

**GRIFFINIAS.**—*G. Blumenavia* has delicate rose-striped flowers, and *G. hyacinthina* has white flowers striped with sky blue. Than these there are no finer autumn-flowering *Amaryllids*, having large clusters of beautiful large Lily-like drooping flowers, produced successively for from six to ten weeks. They are stove plants which ought to be extensively grown. The plants require a light position throughout the year, and should be potted in spring. They should be copiously watered during growth, and not at any time the leaves allowed to flag, for they are evergreen, and the plants ought never to be dried-off so as to lose the foliage.

**AGAPANTHUS UMBELLATUS.**—This is a fine old plant, and with *A. umbellatus albus* flowers in spring (April) in a greenhouse, and if the plants are wintered in a cool house and subsequently placed outdoors they flower in August. The flowers are very useful for cutting purposes. Water very freely during growth, and keep dry in winter, but let it be that sort of dryness which will keep the foliage fresh, for they are evergreens. Pot in spring or after flowering. Three parts fibrous loam, and a part each leaf soil and fibrous peat, will grow them well.

**ANTHOLYZA ÆTHIOPICA** is a desirable plant, and requires the same treatment as *Schizostylis*.

**TRITELMIA UNIFLORA** is also useful for affording cut flowers, and is as easily cultivated as the *Crocus*.

**TRILLIUM GRANDIFLORUM** (Wood Lily) is a fine plant for moist ground, and if potted in the autumn and brought forward in gentle heat flowers early in spring, and is beautiful.

**POLLANTHES TUBEROSA** (Tuberose).—This well-known favourite produces its flowers in tall spikes, and having soft stems they are good for cutting, for the buds will open successively to the last, whilst for bouquets, or the hair, every pip is available. The single variety may be said to have gone out of cultivation, but it will make its appearance occasionally amongst the Double White Italians. These are good, but the Americans are decidedly more vigorous and more floriferous, and are in every way superior. The variety, if I mistake not of American origin, named The Pearl, is of dwarf habit, not growing more than two-thirds the height of the old sorts; it has also finer flowers, and when it is more moderate in price it will drive its taller brethren out of the field. The tubers are not to be had until December, and an early bloom being desired they should be potted at once, removing the offsets and taking out all the buds except the central one, and then pot them in 6-inch pots moderately drained, and covering the tuber with soil, leaving only the apex clear of it, surrounding the tubers with silver sand, using a compost of light fibrous loam three parts, one part each of leaf soil, old cow dung or well-rotted manure, and silver sand well mixed. The pots may then be plunged in a hotbed of 70° to 75°. The top heat for at least a month ought not to exceed 65° by artificial means, nor should it be less than 50°. No water should be given until the foliage appears, and then commence to bring the soil into a moist state by watering around the inside of the pot; the top heat after this must be maintained at 60° to 65° at night, and 70° to 75° by day, with the usual fluctuation of 10° to 15° or more with sun heat, giving abundance of air. When the plants have made a good start they should be gradually withdrawn from the hotbed, or its heat should be allowed to decline, so that the plants will not receive a sudden check. In any light airy house with the temperature above-named they will, if placed near the glass, succeed admirably. The plants ought—when the pots are filled with roots, and before they are curled and

twisted into a mat—to be shifted into 7 or 8-inch pots, watering moderately for a time, and when the pots are filled with roots water twice a-week with weak liquid manure. Syringe the plants two or three times a-day to prevent the appearance of red spider, and if the syringing be not enough take two sponges wet with a solution of soft soap 2 ozs. to the gallon, and one in each hand commence at the base of each leaf and draw upwards, the leaf being between the sponges. A batch should be started every three weeks up to April; the first will flower in May, and some of the latter being placed in a greenhouse when in good foliage after being started in heat they will flower in August if warm, or September if cool, whilst the others of the April batch will, grown in heat, bloom late in July or early in August, and a later lot potted in April but not started until May, and when growth commences forwarding in a greenhouse will produce blooms in October. In all cases I prefer to pot in a moderate-sized pot, and to shift, before the stem rises, into pots that will admit of at least 1 or 1½ inch of fresh compost all around, draining well at the last potting, as the watering must be copious—not soddening, nor on the other hand allowing the foliage to flag.

**EUCHARIS AMAZONICA.**—This is essentially a lady's flower, both for hair and dress, combining purity of colour with delicate fragrance. Some can scarcely command a bloom of this plant at all, others flower their plants twice a-year, and some four times, which means never-out-of-bloom. Some force them into flower with bottom heat, and others starve them—that is, they rest them in a pit or greenhouse, and flower them in a stove. When there is such a diversity of opinion how is anyone to decide correctly?

There are at least two if not more varieties of *E. amazonica*, or the species are confounded. There is a kind which commences growing in December or January, and this has very much stouter petioles and very much shorter, with considerably broader and thicker leaves, deeper in colour, and has larger heads of bloom, and more numerous blooms than a variety which commences growing or flowering in May, and which is remarkable for its long leaf petioles, its thinner-textured, smaller and paler-coloured leaves, and smaller flowers with a paucity of them. Is not the former *E. grandiflora* syn. *amazonica*, and the other *E. candida*? I think so.

In January the bulbs are to be shook-out of the soil or the soil removed, and four or five of the largest potted in a 10 or 11-inch pot, and draining well, using a compost of three parts turfy loam and one part each of well-rotted cow dung and fibrous peat, and pot so as to just cover the bulbs. Three bulbs may also be placed in an 8 or 9-inch, and one in a 6 or 7-inch pot. Place in a warm stove 60° to 65° at night, 70° to 75° by day, and keep very moist, and in March or April they should flower, and for blooming they may be placed in a cooler house, and afterwards be returned to the stove, when the plants not unfrequently flower again in July. It is better, however, to rest the plants for a time after flowering, say six or eight weeks, in a cool stove or a cold pit after May, which by judicious air-giving is a stove, watering only to prevent the leaves flagging, and introducing to heat again, when the plants will flower in August or September. Plants may be had in bloom at almost any time by growing them in brick heat and affording abundant air-moisture and water, and when the growth ceases rest them near the glass in a warm greenhouse (55°–50° min.) with water only to keep the foliage from flagging, and with a syringing overhead once a-day they will scarcely need water until required for starting. The rest should not be less than six weeks. Another mode of culture is not to dry the plants at all, but after flowering, or when the growth is complete, to place them in a house of about 10° less heat than that in which they are grown, but light and airy and by no means so dry as to affect the foliage, and with ten weeks of this cool treatment to return them to heat, giving plenty of it, for they enjoy strong moist heat and liberal watering during growth, and after flowering and completion of growth rest in a cooler house.—G. ABBEY.

### TOPIARY WORK.

On page 229 we inserted notes and an illustration of the topiary work for ornament at Elvaston Castle, and we now add another example of the useful topiary work at the same residence—in other words, of the clipped evergreen hedges in its garden.

No one who has not tried the experiment by the aid of a thermometer can duly estimate the superior protection afforded

by an evergreen hedge compared with that afforded by a deciduous hedge. We have repeatedly found on the leeward side of a Laurel hedge, and of a Yew hedge, the thermometer showed 10° of higher temperature than on the leeward side of a Blackthorn hedge, and a Hawthorn hedge. A Holly hedge would probably be as good a preventive of cold, but we have not had an opportunity to test it.

If the evergreen hedges are curved as at Elvaston they are more sheltering from winds, and consequently more preservative of temperature, than if in straight lines. Such hedges should not be less than 2 feet thick and 5 feet high.

Hedges as mediums of shelter might in exposed districts be more advantageously employed than is the case at present. Many are the gardens, especially those recently made, which are quite destitute of provision against high and cold winds, and also—for this is important—against the overpowering

effect of the sun in summer. None, except those having the management of gardens entirely exposed, can appreciate how earnest and, too often, how hopeless is the longing for a shaded "north border." A garden without this necessary adjunct, and, of course, its corollary the "warm" south border, is incomplete, as lacking the invaluable means of accelerating and retarding many important crops. Where walls are not provided (in many places they are inadmissible), a great use may and ought to be made of evergreen hedges.

Their utility and value is appreciated in nurseries where they are employed to a much greater extent than in private gardens, and we may be assured that this would not be unless they answered important protective purposes against cold on the one hand and heat on the other. This is, perhaps, even more apparent in continental than in English nurseries.

There can be no doubt whatever that to judiciously interest

Fig. 106.—TOPIARY WORK AT ELVASTON CASTLE.

exposed gardens with neatly-kept evergreen hedges would be to increase the usefulness and profit of the ground to a very considerable extent, and at the same time would add to the appearance of such unbroken flats, and render the gardens more diversified and attractive.

We have frequently been envied the aid of a fine Yew hedge running east and west with its sloping warm border on the south side, and still more so perhaps the cool border on the north. As a space in which to plunge pot plants in summer a shaded border is indispensable, and not in a less degree is it valuable for purposes of propagation. A hedge will afford all that is necessary for shelter and shade, and would also be ornamental where a wall would be totally out of place.

Frame and forcing grounds should invariably be protected by walls or hedges. The consumption—really waste—of heating material in forcing *Seakale* and *Rhubarb* is enormous when the site is exposed; while on the southern side of a thick hedge the work is easy, and the shelter is almost worth half the manure.

In connection with this subject may also be mentioned the formation of the ground. In making new garden a great expenditure of labour is frequently indulged in in levelling the ground—that is, the ground for the kitchen garden, when the very undulations which are removed at such great expense might by judicious treatment be made of the greatest value. We

are intimately acquainted with a garden which is simply a series of hills and dales; and on the ridges, following their conformation, are neat Yew hedges, the borders sloping to the walks and facing almost every point of the compass. In this garden there is no wall, yet the district does not produce earlier and better Peas and Potatoes, and afterwards Cucumbers and Vegetable Marrows, than come from its sheltered borders; and on the shady slopes salads and Strawberries are prolonged to a period when they could not be had on perfectly level ground. To dig up the hedges and level the undulations of that garden would be to rob it at the same time of a great measure of its usefulness as well as its attractive features.

As the results of much experience and observation we are convinced that the usefulness of evergreen hedges as aids to the gardener are not fully appreciated, and there are thousands of bleak gardens that would be greatly improved by such divisional evergreen lines tastefully disposed. But we know what is the great bugbear—their impoverishment of the soil. Yet this is not so formidable as it seems. When once a hedge has attained the desired size regular clippings prevent it making much growth afterwards, and when the top growth is restricted so also is the extension of the roots; and the support that such a hedge requires is really very little, and it is much more than compensated for by the assistance it affords to the crops in spring, summer, and winter.

Yew, Holly, Laurels, Arbor-Vitæ, Evergreen Oak, Phillyrea, &c., are all adapted for screens, but the Yew is perhaps the most tractable, the easiest kept in order, and long-lasting. The engraving affords a striking example of what may be effected with hedges as a means of affording shelter, and presents an idea that may be carried out in any mode that may be required where similar screens are needed, and where walls are not provided or would be inappropriate.

### THE NUTMEG.

Of immense commercial importance is the Nutmeg tree, *Myristica moschata*, syn. *M. aromatica*. It is also ornamental by its clusters of berries or fruit. The plant is not commonly met with in this country, and it is seldom grown except in botanical or official collections. Its cultivation, however, is not difficult. It thrives in a sandy loam and brisk heat, and cuttings strike freely inserted in sand and placed in heat under a bellglass.

Of the Nutmeg tree Dr. Hogg has written as follows in his "Vegetable Kingdom":—"It is a native of the Moluccas and neighbouring islands, but is now cultivated in Java, Sumatra, Penang, the Isle of Bourbon, Mauritius, and other parts of the East, and in Cayenne, Martinique, and some of the West India islands. It attains the height of 30 feet, with a straight stem and a branching head. The leaves are oblong-oval, glossy on the upper surface and whitish beneath, and with an aromatic taste. The flowers are male and female on different trees, insignificant, and of a yellowish colour. The fruit is round or oval, about the size of a small Peach, with a smooth surface, green at first, but becoming yellow when ripe. The external covering, which may be called a husk, is thick and fleshy containing an acrid stringy juice; becoming dry by maturity, it opens in two valves, and discovers the nut covered with its aril, or mace, which is of a beautiful blood-red colour; beneath the mace is a brown shining shell containing the kernel or Nutmeg."

"A plantation of Nutmeg trees is always made from seed, and it is not till the eighth or ninth year that the trees produce flowers. The sexes being on different trees, after the plants are two years old they are all headed down and grafted with scions taken from the female tree, reserving only one male stock for fecundation. The natives of the Moluccas gather the fruit by hand, strip off and reject the pulpy husk, detach the mace carefully, and expose it to the sun, which soon changes its beautiful blood-red colour to a light brown; it is then sprinkled with sea water to render it flexible and preserve it. The nuts are first sun-dried and then smoked, until the kernels rattle against the shell. This shell being removed, the kernels are dipped twice or thrice in lime water, laid in heaps for two or three days, wiped, and packed in bales or barrels. The unripe fruit of the Nutmeg is frequently preserved in sugar in the East; and before doing so it is necessary to deprive it of its acrid properties by soaking it in spirits."

HAVE any of your readers noticed the beautiful tints in the foliage of the Alicante Vine? It is a sight to behold the jet

black bunches hanging beneath a canopy of foliage striped and mottled with the deepest crimson. In an ordinary way the leaves change to a golden yellow colour. Can the unusual colour be in consequence of the heavy rains, or through some chemical action of the soil?—A. W.

### A VISIT TO GARSTON.

HAVING had for a long time a desire to see Garston, an opportunity offered itself in the month of August. We left the Exchange, Liverpool, by omnibus for Garston, which we reached after an hour's pleasant ride. The route was by Sefton New Park; having secured an outside seat we were enabled to

note objects by the way. Sefton New Park has been recently formed by the Corporation of Liverpool. It is tastefully laid-out, and trees and shrubs are growing freely. It contains a good sheet of water, and by a judicious formation of the grounds, rockwork and waterfalls are introduced at suitable points. We next pass through Aigburth Vale, a richly wooded valley, the eye occasionally catching a glimpse of some gentleman's mansion and grounds lighted up with bright flowers. The destination of the omnibus was near four cross roads, and we were somewhat puzzled, not knowing which turn to take, there being no trustworthy butcher's boy at hand. However, by turning to the right over the railway bridge we saw the Vineyard on the left.

Garston is not new to fame, but for some years past has been a noted place for Grape-growing, the name of Meredith being familiar to many readers; but some months ago this great Grape-growing establishment changed hands, and has now become the property of the Cowan-Patent's Company. Their system of heating is simply a miniature lime kiln

Fig. 106.—MYRISTICA AROMATICA.

with hot-water apparatus combined, the hot-water apparatus being built in the upper part of the lime kiln, so that the heat from the burning of the lime also heats the hot-water apparatus. It appears that the old saddle form of boiler seems well adapted for the purpose. At the time of our visit to Garston this new system of heating horticultural buildings was being rapidly pushed on by connecting the whole of the extensive vinerias and other houses; preparations were also being made for the manufacture of gas for the lighting of the establishment. The working-out of the system at Garston is on an extensive scale, and when complete promises to be a great centre of attraction. The whole of the extensive glass structures are to be heated on the lime-kiln principle. The old boilers which have done duty for heating the different ranges are for the present to remain where they are, but connected with the main system, yet shut-off by valves, so that in case of any accident to the kilns these boilers can be made to do duty independent of each other. This new system of heating is said to be satisfactory wherever it has been carried out, and the Company have received many flattering testimonials in favour of the system. We are told that these kilns only require attendance in feeding once in ten or twelve hours, so that the labour of stoking is reduced to a minimum, and night labour abolished. This will be a great boon to under-gardeners and others who have such duties to attend to. Those who have been in the

habit of seeing the ordinary lime kiln at work may, perhaps, fancy that large volumes of smoke will issue from the top of these kilns, but this is not the case, for the top is all cased-in like an ordinary hot-water apparatus, and the smoke carried away in fines and ultimately discharged from a tall chimney. I have a balance-sheet before me sent to the Chairman of the Cowan-Patent's Company by the Earl of Cawdor, where the system has been tried for twelve months, showing that the heating has been efficiently carried out, and a balance of £10 4s. 4d. is shown in favour of the system. I have since my visit been informed that the heating at Garston is in full working order, and that there has recently been a gathering to inspect the working of the new system.

In order to show the heating power required for this establishment I will here give the dimensions of the glass structures. No. 1, span-roofed house, 200 feet long by 42 wide. This house is divided, one-half being devoted to growing pot Vines, the other half for Pines. No. 2, span Camellia house, 144 by 26 with a winding walk through the centre. This may be called a sort of winter garden, Maréchal Niel Roses being trained up the roof after the fashion of Vines. No. 3, span, 144 by 26 (Muscat Grapes). No. 4, span, 42 by 21 (stove). No. 5, lean-to, 86 by 10 (nursery stock). The above are laid to one kiln apparatus, heating 5800 feet of 4-inch piping. No. 6, span, 65 by 24 (Muscat Grapes). No. 7, lean-to, 55 feet by 16 (vinery). This house is planted with Gros Guillaume, one Vine only planted and grown on the extension system. This was a sight well worth seeing, showing that the system is well suited to that fine Grape, which had good foliage, good bunches, and good berries, showing that Garston still maintains its high reputation as a Grape-growing establishment. No. 8, lean-to, 25 feet by 11 (fernery). No. 9, span, 64 by 23 (early vinery). No. 10, ditto, 55 by 31 (show house). No. 11, four ditto pits, average 48 feet by 12 (nursery stock). No. 12, pit, 49 feet by 6 (nursery stock). The above are laid to the kiln which also makes the gas for the establishment. This kiln heats 4000 feet of 4-inch piping. No. 13, span, 28 feet by 23 (Cucumbers and Tomatoes). No. 14, lean-to, 37 feet by 16 (vinery). No. 15, ditto, 142 feet by 15 (ditto). No. 16, lean-to, 116 feet by 19, north aspect. This house is planted with late-keeping Grapes, such as Lady Downe's, Gros Guillaume, &c. They were just colouring, but the latter looking very unhappy, and certainly out of its element in a late house with a north aspect. No. 17, two span houses, 62 feet by 13 (Vine eyes planted out). No. 18, ditto, 57 feet by 17 (stove). No. 19, two span pits, 57 feet by 10 (propagating). No. 20, ditto ditto houses, 62 feet by 13 (stoves). No. 21, span, 78 feet by 11 (fernery). No. 22, lean-to, 38 feet by 16 (vinery), Madresfield Court Muscat. This, like the Gros Guillaume, is grown on the extension system. This fine Grape, both in bunch and berry, was remarkably good, being well finished, the berries being as black as sloes and carrying a beautiful bloom. It seems a pity that this fine Grape is not a late keeper. The above are laid to one kiln, and heating 5800 feet of 4-inch piping.

All the kilns are connected by mains, so that one only or all may be set in operation as may be required, the whole combined power being equal to heating 20,000 feet of 4-inch piping. The kiln which heats 4000 feet of 4-inch piping also makes sufficient gas for two hundred burners. All the kilns are said to be doing their work well, and as the time is yet young in working out the system, the Company have not yet been able to strike a balance-sheet, but sanguine hopes are entertained that the undertaking will ultimately prove a success.

Garston is about six miles from Liverpool, and can be reached by rail from the central station.—G. R. ALLIS.

## NOTES ON VILLA AND SUBURBAN GARDENING.

THE cold pit or frame to the amateur is quite as important as a convenience for storing plants as it is to the general gardener. These structures are often the only means whereby a few plants can be secured or others raised for the supply of the garden during summer. Let us, therefore, look at some of the principal points to be attended to in order to save a few plants over the winter. If there is a greenhouse it should be stocked with the tenderest plants or any plants of doubtful health. The pit or frame should be filled with such as are a few degrees hardier. In many nursery gardens a great portion of the stock of Heaths, Azaleas, Hydrangeas, Myrtles, Fuchsias, &c., are preserved in brick pits the whole of the winter. The principal management consists in carefully covering them at nights and during frosty days, and carefully ventilating them in fine weather. There

must be no mistake about this matter; the object should be to try and have the foliage dry over every day if possible, and keep everything about the plants clean; all dead leaves to be kept cleared away, and the matter of watering be carefully performed.

Among bedding plants particularly the utmost care is needed. They should be examined every day if the weather will allow, because it might happen that a period of frost or bad weather might seal the plants against examination for several days, or even weeks, together, and it is important that this contingency be provided for. If not clean and clear of decay before being closed tender plants would damp-off, such as variegated Geraniums for instance. I have more than once been called upon to give an opinion as to the cause of bedding plants going off, and when I have visited the frame the plants have been almost covered with dead leaves in a rotten state; this is sufficient to cause the death of almost any succulent kind of plant.

The frames should stand in the driest spot to be found and on a bottom well drained, and the pots if not placed on a stage clear from the ground should at least be placed on a layer of dry ashes. Pits built of bricks with their walls tolerably thick, and covered with lights of the best glass well put in, will keep out several degrees of frost if covered up with mats. But during severe frost it is safest to protect the sides of the pit or frame with litter of some kind; or, as is done in nurseries, their sides are banked up with rotten dung and other rubbish. This work is done about this time of the year and cleared away in the spring after all danger from frost is over, and seldom, if ever, does the frost penetrate through the whole. By a constant system of covering up the glass becomes dirty; this must be washed occasionally in order to afford the plants the most light possible during the dull winter months.

Whenever the plants are cleaned let each pot be taken out and the soil stirred up on the surface, and if wet apply a little dry silver sand, and even if thrown over the foliage it will absorb the moisture and assist to dry both soil and plants. Turn the plants frequently, and at times examine the drainage to see that nothing is in the way to prevent the free escape of the water.—THOMAS RECORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

WHEN but little else can be done in consequence of unfavourable weather, manure and vegetable-mould heaps may be turned over. Where farmyard manure cannot be obtained in sufficient quantity for the use of the garden, a heap where all the trimmings of vegetables, plants from the flower garden when they have served their purpose, Hollyhock and Dahlia stalks—indeed, all succulent vegetable matter thrown together, is a *sine qua non*. Of course such a heap must be at a sufficient distance from any dwelling-house, as the smell from it is offensive. When the material has sufficiently decayed it may be dug into the ground the same as manure, and it is well adapted for any crops. We knew a gardener who used to grow most excellent crops of vegetables, and his main supply of them used to be grown entirely by the aid of manure from the vegetable-mould heap. Not a leaf of any kind was wasted, and the young gardeners were sent as time could be spared to gather leaves in the park. It was no part of the gardener's duty to collect the leaves, but their value as manure was an ample equivalent for the labour of collecting them. In the course of a season an immense heap was formed, half of it being composed of the sweepings from the park. The drainage of the farmyard, which in many places is allowed to run to waste, was collected in a large tank, and as occasion offered a quantity of it was carted to the place and thrown over the heap. Now here was a large garden of four or five acres kept in good condition by double-digging and trenching, and almost without the aid of farmyard manure, as the spent Mushroom and Melon beds were required for the use of the flower garden almost exclusively. If a gentleman takes any interest in his garden he will not allow his gardener to be put to such shifts; on the other hand, when but little interest is taken in the garden by the owner, the gardener still wishes to do all he can in the way of keeping up a supply for his own credit. We pay considerable attention to all crops of salads and Cauliflowers under glass frames or lights. Decaying leaves mould on the stem are removed at once, and it is of much benefit to the plants to stir the ground amongst them.

### CUCUMBER HOUSE.

In many families the supply of Cucumbers is a most important one, and at this time it is difficult to obtain a full supply them. Under the best conditions, with good management however, winter Cucumbers may be produced with a tolerable degree of certainty. For winter the best form of house is the half-span, and perhaps this form is as good as any other for all seasons. The plan pursued at Loxford Hall is to have a moveable trellis which is as close to the glass in winter as it possibly



can be without causing the leaves to come in contact with the glass. It is also arranged in such a manner, that as the season advances and the sun's rays become more powerful the trellis can be lowered without in any way interfering with the plants, which are simply lowered with it. At midsummer the leaves are at the furthest distance that the arrangement of the trellis will allow. In previous numbers the details of management have been given; little can be added, except to insist on a moderately moist condition of the roots and of the atmosphere. Steaming the pipes has been tried, but it does not benefit the plants, and may even do harm. By steaming is meant wetting the pipes with water from a syringe or fine rose until the house is densely filled with vapour.

#### PINE HOUSES.

In the fruiting house the largest proportion of plants are now throwing up fruits. For the next two months the average minimum temperature will be 60°, the maximum temperature will not rise higher than an average of 65°. The evaporating troughs are not used in any of the houses during winter, damping the walls and paths about once daily is sufficient for atmospheric moisture. But very little water is required to the roots of the plants; perhaps twice during the same period will be sufficient. The fruits will ripen in May and up to the middle of June. Other plants in the same house will not throw up until the temperature is increased early in February. Such plants will not be watered at all until that time. It will thus be seen that while one set of plants are swelling their fruits another set of them are at rest, and a compromise has to be made in the winter treatment.

Succession houses do not have quite so high a temperature: 55° is the best minimum, and lower than that is not desirable, if indeed it would not be positively injurious to the plants; and instead of well-shaped fruit, badly-formed worthless examples would be obtained. It is many years since I had charge of a very fine lot of Pines. The plants had been grown under my own care, and so fine were they that the greatest expectations were formed as to the results of their fruiting. Unfortunately the plants had to be removed to a house where the temperature in severe weather could not be raised to 55° at night, and it would often be 50°, sometimes as low as 45°. When the fruit showed in the spring it was to me a great disappointment to find the largest proportion of them were miserable abortions.

Admit air on all favourable occasions; unless the weather is very cold, air ought to be admitted every day.

#### PLANT STOVE AND ORCHID HOUSES.

We are trying a lower temperature in this department this winter; 65° has usually been our minimum temperature, but for at least two months from this date 60° will be the minimum instead of 65°. The only plants that would be likely to suffer from the lower temperature would be *Phalenopsis grandiflora* and *P. amabilis*, also the Pitcher-plants, such as *P. Rafflesiana*.

Some extended remarks were made in a previous number about the Orchids and other plants in flower, and such as are useful for decorative purposes from the beauty of the foliage alone. To them may be added *Poinsettia pulcherrima*. The plants are now in great beauty, and the lower leaves which add so much to the effect have been retained more so than usual. How often does one see this fine plant almost denuded of leaves, the floral bracts stunted and dropping off prematurely! What is the reason of this? may be asked. The reason in most cases is this, that the plants are grown-on during summer in an over-high temperature and in hungry soil. The *Poinsettia* delights in rich substantial turfy loam, and our plants have been watered with guano water almost as strong and quite as frequently as it has been applied to *Chrysanthemums*. During the summer months the plants were placed in a sheltered position out of doors, and were removed to the stove or Pine houses in September. Many stove plants are greatly benefited by being placed out of doors; and if, as is too often the case, mealy bug is present on them, it will not thrive in the free air and frequently chilly nights of August and September. *Gardenia florida* is very greatly benefited by this exposure, and we had, perhaps, the best bloom from *Dendrobium nobile* when it was placed out in front of a south wall freely exposed to the summer's sun. Considerable care is requisite in watering at this season. It is always best if rest can be given to any plants during such dull weather as we have at present.

#### FLOWER GARDEN AND PLASMURE GROUNDS.

Preparations must now be made for the flower beds next season. Sticks and pegs are made ready during inclement weather. Where there are plantations and an undergrowth of brushwood plenty of material can be obtained for either purpose. The sticks may be cut into convenient lengths and tied-up in bundles. When the sticks are being trimmed pegs may be made of the spray, and the different sizes of each should be kept together.

We take the first favourable opportunity to mulch the Rose beds, also round the roots of isolated specimens, with short rotted manure. The best time to do this is when the ground is hard with frost. Very few need be told that all wheeling

with barrows is best done in hard weather, when the barrow wheel runs over the ground as it would along a smooth plank. In fine weather sweep and roll the walks and lawn, and much may be done by looking over the shrubbery, cutting out all dead or decaying wood, and cutting back branches that have grown out of place. Even Coniferous trees are much improved by having any side branches that have taken the lead cut back; this encourages a more even growth. Mulching over the roots of such trees, as also *Rhododendron* beds, is very beneficial. The *savants* have given notice of a severe winter, but even without any warning it is best to be prepared by having a thick mulching over all tender subjects and protecting material at hand to be used in case of an emergency.—J. DOUGLAS.

#### TO CORRESPONDENTS.

BOOKS (*A Subscriber*).—We do not know Newton's pamphlet.

REMOVING ROSES (*Brier Cutting*).—If the shoots are hard and well ripened you may safely remove the plants now, pruning closely in March, but all that are weakly should remain in the cutting beds another year.

GAS LIME FOR DESTROYING SLUGS (*M. H. H.*).—It may be safely sprinkled thinly on the Rose beds and also round Carnations, but must not be in contact with the plants.

PLANTING STRAWBERRIES (*Caution*).—The land would be better trenched two spits deep, half the manure being placed between the top and bottom spits, and the other half upon the surface. Ploughing 7 or 8 inches deep, however, would answer, giving the amount of town manure you propose before ploughing, doing the work at once, so as to give the land the benefit of a winter's frost. Couch grass, dock, dandelion, plantain, and other deep-rooted weeds should be thoroughly cleared, as these coming up in the Strawberry plantations are extremely troublesome. Plant in rows 2 feet 6 inches apart, and the plants 3 feet asunder in the rows. You may calculate upon a pound weight of fruit per plant in a good season, but an allowance of at least half should be made for loss from adversity of seasons. Planting in March you will not have any fruit worth mentioning the first season, but a full crop the season following.

ASALIAS LOSING THEIR LEAVES (*A Subscriber*).—It is usual for them at this time of year to lose some leaves, but not to the extent yours are doing. It may be due from the plants after the buds are set being kept in too dry and warm an atmosphere, with probably insufficient watering and exposure to too strong light, or by the plants having been kept moist, shaded, and in strong heat, for the formation of wood and buds. Without, however, having particulars of treatment we can only conjecture the cause of an undue falling of foliage.

SEED FOR SOWING A QUARTER OF AN ACRE (*Anxious*).—Long Carrots (the best being Altringham or Long Surrey, the latter best for house use, or if the soil be shallow, Red Intermediate), 2 lbs. of seed; Parsnip (Hollow-crowned is best), 1½ lb.; Flat Poll Cabbage, which we presume is the Large Drumhead, ½ lb. if transplanted, or if drilled, ½ lb.

EARLY POTATOES (*Idem*).—The best early Kidney Potato for market purposes is Myatt's Prolific Ashleaf, and the best very early round is Early Goldstream. A better cropper but later is Early Oxford. Do not plant until March, being careful not to remove the first sprouts, and if they have sprouts when planted half to three-quarters of an inch long all the better, planting the third week in March, if without sprouts about three weeks earlier.

LOMARIA GIBBA UNHEALTHY (*J. S.*).—We do not think the plant would suffer in so short a time from imperfect drainage. A more likely cause is injury to the fronds from too drying an atmosphere or an attack of insects, probably thrips, which you could have enabled us to determine had part of a dead frond been enclosed to us. We should not cut away more than the dead part of the fronds, and beyond rectifying the drainage and any sodden and sour soil, replacing with fresh, we should not interfere with the roots; keep the plant in a rather close and moderately moist atmosphere, affording a temperature of 50° by day, and night 45° to 40° during the winter months from fire heat, which will, of course, be higher in mild weather from natural agency. When the plant commences throwing-up fresh fronds rest, cutting away the old fronds, and encourage growth by a rather higher, closer, and moister atmosphere.

EVERGREENS FOR A S.S.W. AND E.S.E. WALL (*G. T.*).—The galvanised wire trellis ought not to be fixed 1½ to 2 inches from the wall, but three-quarters of an inch. The following would succeed on either aspect:—*Ceanothus aureus*, *C. floribundus*, *C. Lobbi*, *C. integrifolius*, *Edwardsia microphylla*, *Embothrium coccineum*, *Escallonia macrantha*, *E. monticola*, *Garrya elliptica*, *Ignostemum japonicum*, *Magnolia grandiflora* (Kilmouth variety), *M. grandiflora floribunda*, and *Buddlia globosa*. Suitable climbers would be *Lardisbala biterata*, *Jasminum officinale grandiflorum*, *Pamissora cuneata*, *Cepitellum odoratissimum*, *C. sempervirens floribundum*, *Berberidopsis corallina*, *Elgonia grandiflora*, *Glycine sinensis*, and *G. frutescens magnifica*, *Orydala japonica*, and *C. japonica princeps*; but some of these are not evergreen, and are not so good for giving an evergreen clothing to a wall as the first-named.

INCLINING THE SURFACE OF TERRACES (*J. P. of York*).—We have two terraces, each about 24 feet wide, with an incline on the flat part of a foot each outward to the slope, and no one can tell that the surface is at all inclining. We should not hesitate to give an 18-foot terrace an incline outward of 9 inches, and the other of 27 feet an incline of 12 to 15 inches, but be careful to have the surface regular, and the slopes of the same height at the ends and throughout their length. An incline in a terrace is the most noticeable and objectionable when it is inward, but a slight incline outward—i.e., from the eye at an elevation, is if anything an improvement, as a terrace quite level always appears as if inclining inward. We do not know whether the landscape gardener you name is still practising.

STELLARIA GRAMINEA AUREA.—"ONWARDS" asks if the Golden Feather is to be superseded by this *Stellaria*. Will some of our friends state their experience?

HOT-WATER PIPES IMPROPERLY VARNISHED (*W. H.*).—The fumes given off by the pipes when heated causing the leaves of Geraniums to shrivel and fall, will continue to be given off for a long time, especially when highly heated. It would be the most preferable plan to remove the tar varnish with caustic

potash. Dissolve the potash in water, mixing with freshly-slaked lime, and after the mixture has settled pour off the clear liquid for use, keeping the pipes wet with the liquid, and removing the varnish with a coarse cloth; but a still better plan is to remove the pipes, and making-up a wood fire burn-off the tar varnish. The best paint for hot-water pipes is made of lamp black mixed to the proper consistence with linseed oil, and applied to the pipes whilst hot.

**CUCUMBER LEAVES SHRIVELLING** (*A. B. C.*).—The plants are probably affected with disease, the symptoms you describe being attributable to it. There is no known remedy, but it is most prevalent when the soil is rich and with too much moisture in the atmosphere, and a high night temperature, with a defective arrangement for bottom heat, it being too low.

**BOILER** (*E. T. S.*).—There is practically very little difference between the boilers named, both are good. Either would suit you. Your present boiler is a good one, and must be of too small a size for the work it has to do. By raising the boiler you would lose heat, as the size of the furnace would be increased without increasing the surface of the boiler for the abstraction of heat. A great waste of fuel is the result of a large furnace with a small amount comparatively of boiler surface exposed to the direct action of the fire. Hollow grate-bars do not prevent clinkering, as anyone having the stoking of them can testify. No boiler with the return pipes at the lowest part of the boiler, and the flow at the upper part, can possibly have the water in the return pipes hotter than in the flow pipes without the circulation of the water being obstructed, and this is what we think is the matter with your apparatus—improper arrangement. The fire acting on the boiler, the heated water should rise by the flow discharging the cold, which from its greater gravity will sink to the lowest point, and the return pipes are consequently the coolest until such time as the whole volume of water becomes heated. Any result different to this is indicative of defective arrangement.

**STURMER PIPPIN A KEEPING APPLE** (*E. F.*).—Your fruit-room must be in fault. It is one of the longest keeping. In 1867, July 26th, we had on the table Early Harvest Apples of the same year, and Sturmer Pippins of 1866.

**BOWING BRIDS OF SHRUBS AND TREES** (*E. K.*).—All the trees and shrubs named in your list would succeed except Nos. 1, 9, 13, 18, and 14. We do not know the Honeysuckle you describe. Of *Opuntias* you may add *Lambertiana*; of *Pinus*, *Cembra* and *Laricio*; of *Juniperus*, *chinensis*, *communis*, and *drupacea*. *Peat* earth shrubs would not succeed in the seedling state unless you were to give them from 4 to 6 inches of soil of that description, and at no time would they do well in a soil such as yours appears to be. The best variety of hardy *Daphne* for pots is *D. Cneorum*.

**IRON PILLARS FOR BOWNS** (*E. I. S.*).—You can have iron stakes of inch-round bar iron, which should have four prongs, each of about 18 inches in length, for securing in the ground, or you may have the iron rods leaded into stone. We should not, however, have solid iron, but procure lengths of wrought-iron piping 1½-inch bore, and let the sockets and into stone 6 inches and run with lead. The stones should be about 15 inches square and covered about 4 inches deep. The pipes should have four coats of red-lead paint. To keep water from the pipe a screw cap or plug may be employed. Any ironmonger would supply the pipes, and any mason would fix them in the stones. A wire from each pillar would do more harm than good, as they are in a curved line, unless you were to have a stay to each and on the inside of the curve.

**MUSHROOMS FAILING** (*An Anxious One*).—Our Mushroom beds have stone shelves for bottoms, and answer admirably; they are about the same depth as the description given of yours. We are not surprised at the failure when you inform us that "pieces of spawn were thrown in at the time of making-up." We give a brief summary of our practice, from which you may probably glean the information that will secure success in future efforts. Fresh horse droppings are collected with a portion, about a fourth, of short litter, and laid thinly in a dry airy place, and not so thick as to heat. When a sufficient quantity is had to make a bed of 15 inches to 18 inches in depth—which we can obtain in about three weeks by shaking out the long litter, freeing the short of as much of straw as may be done with a fork, and placing it in a ridge-like heap on one side until the whole has been shook out—we take the short litter, which will have been well mixed, the fresh being placed at the bottom and the heated at top; and though we have tried the fresh droppings not allowed to heat, and the litter shook out of the manure heap not older than three weeks, we failed to notice any difference in the result. The dung is placed in the bed 2 inches thick, and beaten very firm with a wooden mallet about 6 inches square, and with a short wood handle. Layer after layer is put on the bed, and each layer is beaten as firm as the first, and the whole is made to have an even surface and of equal depth—not less than 15 inches, nor exceeding 18 inches. The heat will have declined to a suitable spawning temperature in about ten days. Not until the temperature has fallen to 90°, and before it falls to 75°, the spawn must be inserted. The temperature at which to spawn is that of the bed 4 inches deep. The spawn (fresh is best, which, if it is good, will smell very strongly of Mushrooms) is broken up into pieces about 2 inches square, and inserted so as to be covered about 2 inches deep, and after spawning a light beating is given the bed so as to firm the dung over and about the pieces of spawn. In a week or ten days after spawning the bed is earthed 2 inches thick with rich turfy loam chopped-up rather fine, and in a condition as regards moisture that it may be beaten very firm without forming a muddy mass, and yet be a close, compact, hard surface. In six weeks the bed will have Mushrooms appearing on its surface, or soon afterwards, and should be lightly watered, and after this be kept moist, but avoid making the soil very wet—just moist is sufficient. The floor and walls as well as the bed should be sprinkled with water and kept moist, for the Mushroom is impatient of a dry atmosphere. The house must be dark, and the temperature 55° to 65°. The sample of spawn was good.

**COLOR-WASH FOR GARDEN WALL** (*Lady C.*).—A solution of carbolic powder with water and thickened with lime to the proper consistence would be a good mixture to apply to the old wall. We should add soot sufficient to tone down to a dull grey or very light lead colour as may be most agreeable. By mixing a small quantity, and applying it to the wall, letting it become thoroughly dry, more or less soot can be added to make the wall lighter or darker as desired. Wash the wall at once, choosing dry weather; a brush would be preferable to a syringe to apply the solution, which should be thoroughly brushed into the seams and crevices.

**NAMES OF FRUITS** (*W. Dawber*).—1, Gloria Mundi; 2, not known; 3, Loane's Pearmain; 4, Bull's Golden Reinette; 5, Herefordshire Pearmain; 6, Nonpareil Park. (*F. F.*).—Van Mons Leon Leclerc. (*J. P.*, *Highgate*).—Monsieur Jean. (*Connaught Subscriber*).—1, Oranienne; 2, Beurré Diel; 3, not known. (*Lady C.*).—Neither of the Apples is the old Golden Pippin. No. 1 is Franklin's Golden Pippin, and No. 2 the Stone Pippin. (*W. A. K.*).—1, Beurré Diel;

2, Beurré Bosc; 3, Beurré Rance. (*F. Jellico*).—The Apple is Gloria Mundi, and the Pear Doyenné Boussoch.

**NAMES OF PLANTS** (*Mrs M. May*).—The specimen is very imperfect. It appears to be *Trachelium caeruleum*. (*M. I. B.*).—1, *Nephrodium retigerum*; 2, *Pteris arguta*; 3, *Adiantum cuneatum*; 4, *Polypodium appendiculatum*; 5, *Asplenium nidus*; 6, *Aspidium (Oxytomum) falcatum*. (*J. S.*).—*Dendrobium affine*; very healthy and vigorous. (*Senae*).—*Encymus encypus*, the Spindle Tree or Frickwood.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### BIRMINGHAM POULTRY SHOW.

Once more we are in Bingley Hall. The great Show has come round again, and with it "cattle-show weather," as they call it in Birmingham—i.e., a mixture of frost, fog, and sleet; but this matters little in Bingley Hall, where we are too much interested in the yearly contest in many a class to think of the temperature outside. The poultry, alas! save Geese and Turkeys, are not in Bingley Hall proper, but in the same annex as before—a draughty place, its sides overhung with galleries, which cause many pens to be seen to great disadvantage. We used to look upon the Birmingham Show as an institution venerable from its antiquity, and like many such institutions somewhat out of date and needing internal reform. The reforms, however, come tardily indeed, but they do come at last. We observed several innovations last year, among them the displacement of Dorkings from their old position in favour of Brahmas, which, by-the-by, we do not consider an improvement, and this year we see more. Pigeons are shown singly; the objectionable water dishes on the floors of the pens have been replaced by zinc vessels hung up, and we have watched officials distributing chaff in the pens. There are many more practical reforms which occur to us as desirable: The awards might be posted up in some more systematic way instead of being written indiscriminately over three or four cards; green food might be given to the birds, and more barleymeal, or better still, Spratt's food and barleymeal mixed. But these improvements we trust to see another year, and rejoice at what we have. The numbers (1960 pens of poultry and 541 of Pigeons) have, we believe, been exceeded in other years; but 280 more than last year, and few classes are not well filled, and any reduction in entries arises, we fancy, from the rise of standards and the consequent inability of sending rubbish. Dark Brahmas head the list. We should not be at all surprised, after what we have heard and seen lately, to see this popular variety fall off somewhat in estimation; they do not fetch the price they did, and the wheel of popularity seems returning again, as it always must, to the most valuable of English fowls—the Dorking.

**BRAHMA, Dark**, cocks are a good class with thirty-seven entries. As a rule they are well through the moult and in good condition. First as usual is Mr. Lingwood. We only hope that his well-merited successes will not drive other fanciers to abandon the breed. The first and second prize birds happened to be opposite each other, and we had a good opportunity of comparing them. We thought the awards good, the first being the broader bird and best in the rise of back towards the tail, and the most heavily feathered on leg. We preferred, however, the deeper stripes on the hackle of Mr. Ansall's bird. Third is a slightly hooked bird, well-shaped but too long in tail. We did not much admire the fourth. His comb is too high behind and inclined to a peak. Among the highly commended is a bird of Lady Gwydyr's with splendid foot-feathering, a nicely shaped hooked bird of Mr. E. C. Peake's, and a strikingly large one of Mr. Lingwood's. **Cookerels**.—First is a cockerel almost faultless in size and points, though we have seen better combs. Second a beautifully shaped bird apparently young, for his spurs have hardly appeared. He has a neat Brahma head; his hackle-markings are light. Third is a very dark bird, small, and higher in back than we like. His foot-feathering is prodigious, but does not extend well up the leg. We should have put the fourth third; he is a little deficient in breadth of back towards the tail. Fifth a narrow bird, but he has a good black breast and beautiful orange-coloured legs. **Hens**.—The first winners are we think well known. One of them not very good in leg-feathering; but they are grand hens, evenly pencilled all over. Second are a little brown, good in shape and size; third are fair in pencilling, heavily feathered on legs, still a trifle brown, and one not so sprightly as her companion; fourth fine in shape, with pencilling like that of Mr. L. Wright's strain. **Pullets**.—Certainly the Crystal Palace does show off all birds to advantage, though the superior birds are chiefly the same as those we saw there; they do at Birmingham look strangely different. To the first pair of Dark pullets was awarded the twenty-guinea cup for the best pen of Brahmas in the Show. An exquisitely-pencilled pair they are, just the type of birds which last year were bred by Mr. Peake—not very large or heavily-feathered, but with the fine truly Brahma head; of a beautiful ground colour, and crisply and uniformly pencilled all over. Second did not look to us like Mr. Lingwood's best; their wing and back marking is beautiful, but they are a trifle light on breast. Third a Night-

coloured pair, evenly pencilled all over, but very poor in leg-feathering. Fourth somewhat indistinct on the breast for a prize pair. In the fifth-prize pen one pullet was better than the other. Mr. Birch's highly commended pen (140) contained one enormous bird, we almost think a hen sent by mistake. Mrs. Baillie Hamilton showed a singularly well grown pair, highly commended.

**Light Brahmas** almost equal their Dark cousins in aggregate numbers. The pullet class of the variety is peculiarly strong, and a highly commended is no barren honour there. **Cocks.**—The first prize goes justly to Mr. Horsfall's beautiful Palace winner, and the cup too. He certainly looks small here among giants, but he deserves his honour. We described him in our Palace report. Second and third are fine birds, with little to choose between them; they are both larger by far than the cup bird, but do not show his marvellous style. Fourth is rather loose in wing, and spoilt by a huge comb. We think the four prize birds well placed. **Cockerels.**—Mr. Horsfall repeats his double first in cocks, as at the Palace. If his cockerel had a prettier comb it would be an admirable bird. Second not a large bird, but neat all round and fine in foot-feathering. He fetched twelve guineas at the auction. Third another of Mr. White's birds, deficient in neck-hackle, but good in shape and very white. Fourth a fine bird in shape and size; we should have put him second. Fifth rather narrow. Several nice birds, among others Mr. Tedd's (192), would have been higher but for a yellow tinge. We admired one of Mr. Dean's highly commended birds, but he has not enough neck hackle. **Hens.**—The cup went to a magnificent pair, not a good match, however. The best of them is the first Palace bird, a marvel in shape and size, but not looking happy at Birmingham. We hope she will not be overthrown. Second again are not well matched. One of them is superb in shape, and would thus match Mrs. Tindal's best bird, but is deficient in hackle. Third a nice healthy-looking pair of hens, well hackled, but without the massive look of the first and second winners. **Pullets**—number sixty-eight pairs. The average quality is very high, and they must have given much trouble to the Judge. The first are a large pair, clear in hackle and ground colour, and must make magnificent hens, for they look hardly full grown. Second again an excellent pair, splendid in foot-feathering. Third a square and well-feathered pair. Fourth well grown, one better marked in hackle than the other. Fifth one of the best-shaped pairs in the class, but light in tail. Thirteen high commendations and seven commendations testify to the excellence of this class. The shortness of the days has not given us time to look over the **Brahma Selling** classes carefully. They seem a success, as bringing good and cheap birds into the market. The three first pairs of hens sold respectively for £8, £5, and £6.

Mr. Teesbay judged all the Brahmas, and must have been well employed on Saturday.

**DORKINGS.**—The Dark variety certainly do not muster the number of entries which we remember at Birmingham eight or ten years ago, but the quality is very good, and in most cases their colour too; indeed, we are afraid there is a growing tendency to regard them too much as birds of feather. **Cocks.**—Here Mrs. Arkwright is in her old position, and takes second prize as well as first cup. The first cock is square and massive, a little shaky on his legs; he is light in colour and splashed on breast, but has a good black tail well moulted-out—a merit, and one often overlooked. The second is a very similar bird in colour, though not so square in make, and carries his tail too far back. Third a very tall and dark bird with excellent white feet, a little wanting in breast. Mr. Darby's highly-commended bird and Mr. Bartrum's unnoticed one are both grand cocks, but not in their best plumage or condition. **Cockerels.**—Mr. Burnell is first with a gigantic young bird, which we commented on when second at the Palace. Second a large and long cockerel, but we do not much admire him; he is white in earlobes, and one of his middle toes twisted. Third a squirrel-tailed bird, good in feet and comb. Fourth a large bird, good in legs and feet, very brown on the wings. Fifth strong in limb, of a good dark colour. As a whole the cockerels were certainly not in such strong force as we have seen them, at the same time there were very few really bad birds. **Hens.**—The three winning pens are all excellent and well placed. The cup birds are fairly a-head, and a magnificent pair. Mr. Bartrum's second pair are rich in colour, and one of them a grand bird, being superior in form and comb to the other. Third are very large, but dusky in feet. **Pullets.**—In this class sooty feet prevail; it seems next to impossible to get white feet with the very dark colour now required. Here again Mr. Burnell heads the list. The first and second prize pairs are nearly equal. First are a well-known pair, second and third at the Palace, their only fault being dark feet. Second a deep-bodied rich-coloured pair, white in feet; they come from Ingham. Mrs. Arbutnot's mantle seems to have fallen on her successor! Third well placed, one specially good. A nice pair of Mrs. Arkwright's are unnoticed, we suppose as being too in-kneed. An almost Black pair of Mr. Drewry's are highly commended.

**Silver-Greys** are improving in numbers; among the winners are birds that would well do battle against the Dark variety. The cup cock is very good all round, and easily first. Second has a bad overlapping comb; he is generally inferior to Mr. Rutledge's unnoticed bird, which we conclude was put out by a little white in thigh. **Cockerels.**—We are glad to see Lord and Lady Bagot again exhibiting here. First is good all round, not very deep-bodied. Second a nice silvery little bird, second at the Palace if we forget not. Third very poor, dark in neck-hackle and shoulders. A large and good bird of Mr. Howard's highly commended. The light in Birmingham is very unpropitious for judging silvery birds, and many of this class look yellow, which at the Palace would make a good appearance. **Hens.**—The two winning pens are old acquaintances, both from Mr. Cresswell's yards. The first pair marvellously long in body, and large; the second not quite their match, but very square and thorough Dorkings. **Pullets.**—A fine pair carry off the cup, one of them such a pullet as we have seldom seen. Second are also a good pair, but we dislike their breast colour. In our opinion the breast of a Silver-Grey hen should be either robin-coloured or salmon-coloured, but these and many other good birds now have breasts of two shades of cinnamon.

**Whites** continue to improve, and many grand birds are to be found in the four classes. Combs are the failing in this breed. Mr. Cresswell repeated his Palace victories, and secured both cups. The cup cock is very broad, and by far the truest Dorking in the class. Second is a very nice bird and massive, but he has not the style of the cup bird. In cockerels Mrs. Hayne is first with a very white bird. We think we saw him in the prize list at Oxford and the Palace. He has had his tail broken since then. Second is a fair bird, not very striking. There are many good birds among the unnoticed in this class. **Hens.**—One hen in the first-prize pen is large and good, the other smaller and with twisted hackle. She was third at the Palace. Second a fine pair but with wry combs. Highly commended a very white pair, one of them the cup hen at the Palace. **Pullets.**—The cup went to a pretty pair but not so good, we think, as their owner's highly commended pair, which were in a bad light and seen to disadvantage in a corner pen. Second a good match and in their right place.

In the **Selling** class the first-prize Dorking cockerel is a good bird all round and worthy of the open class. The hens are poor.

Mr. Baily judged all the Dorkings, and we heard few complaints about his awards, which is something to say at Birmingham, where for various reasons it is difficult to make satisfactory decisions.

**COCHINS.**—It is unfortunate that the Buff Cochins are ranged round the annex under the galleries. Their delicate colours require a strong and even light to show them to advantage. The old Buff cocks are not, as a rule, in good feather and condition. First-and-cup is Mr. Burnell's famous bird which needs no comment. Second a bird in poor condition, and not well recovered from the moult. Third one not sufficiently feathered on the shanks, but in better condition. Fourth a nice bird which we should have placed second, rather black in tail, but good in colour and well feathered. **Cockerels.**—Here we could not understand the first award. The bird is certainly well shaped but mealy on the wing, and his black tail does not seem to suit his canary-coloured hackles. Second an evenly-coloured bird and well shaped. We thought him the best in the class. Third a nice bird, a little cloudy in hackle and not equal to the marvels which sometimes come from Stoke Park. Fourth good, not dark enough in wing to match his fluff colour. We much admired Mr. W. A. Taylor's very highly commended bird, the old-fashioned type of Cochin. Among the highly commended we saw Mrs. Tindal's champion Palace cockerel. He has, indeed, made a mighty descent; others do not so well deserve their high commendations. **Hens.**—Mr. Procter's cup pair are magnificent, though not a perfect match. The lighter one is singularly sound in colour. Second a good and well-matched pair of beautiful shape. Third are smaller but very good in shape. The fourth pen contains one magnificent hen. **Pullets.**—First are a very perfect match and even in colour, one of them is too much feathered inside the legs. Second are a pair which will make even larger hens. They are rather darker in colour, especially one of them, which is the best bird. They are not so short on the legs as Mrs. Tindal's birds, and have not such profuse down. Third a smaller pair and unmistakably hooked, but very even in colour. The class is a super-excellent one, and twenty-nine pens are noticed.

**Partridge Cochin cocks.**—The cup bird is nearly faultless all round, splendid in shape and excellent in condition. Second a very large bird with fine leg-featherings, but too round in back, and slightly slipped in wing. Third rich in colour, not very gainly, but, barring some white in his tail, better, we thought, than the second. Mr. Tudman's very highly commended bird is good, a little too darkly striped in hackle. The cockerels were in a dreadful light, and no judge or critic could do justice to them there. Mrs. Tindal's first cockerel is very near perfection, and will make a larger cock than the cup bird. He does

not carry his tail quite to our fancy. Second a pretty bird, not heavily enough feathered on shank, and his legs are too near together. Third very good, but less than his owner's other bird. We much admired the shape of Mr. Bennett's very highly commended bird; and Mr. Perival's highly commended bird would be a winner in most shows. Hens.—Breeder of this variety seem to stick to it. Mr. Stretch is a veteran exhibitor, and is not behind the times. His cup hens are magnificent in size and form, and more Grouse-like than most winners of late. Second fine in penolling, good in form, and fairly large. Third crisp in penolling, but not a match; the smaller one is good in shape but has a bad comb. Pullets.—We are glad to see that "Brown" is not merely a name in schedules and catalogues now, but that many darker birds are not only shown but win. The first pullets are excellent, one in particular; they are well marked on breast and wings, especially considering that they are of the darker colour. Second are not so big a pair, but well matched, and their penolling is like that of good Dark Brahmas. Third in cinnamon darkness appeared to us good and of a rich brown colour.

**White Cochins.**—The cocks are a magnificent class, and in better feather than most old birds. We fancy this may result from the breed being so much kept indoors. The cup bird is spotlessly white, and perfection in leg-feathering. His back does not rise quite enough towards the tail to please us, but this may only be the result of the discomfort of a pen. Second a little hooked, with a well-shaped comb, a bird which we think does not show himself to advantage in a pen. We preferred the third; he is very white and finely feathered. Mrs. Acton Tindal's very highly commended bird, though small, is stylish, and just the form we admire. Cockerels.—No. 1 is low on leg, magnificent in thigh, fluff, and leg feathering; 2 a big bird, which should be a better cock than cockerel; 3 a nice short-backed bird, rather yellow. We like an unnoticed bird of Mr. Tomlinson's; heavy feathering inside the legs must have pulled him down. Hens.—The cup pair are very grand. We have not seen such since the days when Mr. Woodgate gained a series of victories with two renowned hens. Second are smaller but very white, and we thought one in shape the most perfect model we have ever seen. Third were far from the first and second, possibly scurfy on the legs, but one of them good in shape. Pullets.—The first are much a-head; the same type of birds as Mrs. Acton Tindal's hens. Second a good pair, large and apparently young, a little yellow. Third a pretty pair, rather set in figure, and one yellowish.

**Black Cochins** are making great strides. In cocks Mr. Darby has it all his own way. First is a very pretty bird; he is better and more gainly in shape than most birds of the coloured varieties. The better Blacks certainly have much of the shapely form of the early-imported Cochins. Second is a little too high in comb, and does not rise quite so well in back towards the tail; his legs are yellow. Hens.—The first-prize pair are large, but we do not think them the best in the class. One has a high, twisted, white comb, and the white extends on to the side of the head; her beak too is very crooked. Mr. Hargreave's pen (918) were too late for competition, or they must have won. One of them is a true Cochins in form. Second are a well-formed pair of pullets, one of them somewhat under-feathered. Two pens received very highly commended cards, which testifies to the improvement in the breed, for not long ago it was difficult to find pens fit for prize cards. Mr. Hewitt judged the Cochins and Malays.

**Malays** have some faithful admirers, but they never can become a popular breed. The first cock is an enormous very dark bird with willow-coloured legs, which struck us as a blemish. Second a less bird of bright colour; a nice White is highly commended. The class for cockerels is good. First a magnificent bird. Second, too, will make a fine cock. The cup hen is good and moderately dark. Second very dark; a light cinnamon one receives a very highly commended. The first pullet is very hard in feather and clean made. The second took our fancy—an immense bird of a rich dark brown colour.

**Chevrons** have but two classes. They have been beaten by their Houdan cousins—a breed more suited to our climate. The first cock is not very large but in spruce condition, glossy and black in tuft with a splendid beard. Second a large bird with little beard and very irregular tuft. Third looks old and done-up, though large; he has the most enormous tuft we ever saw. Mr. B. Fowler's highly commended bird appeared to us a perfect model Crève in form, though a little undersized. Hens.—The cup pair well deserve their honour; they are grand birds and black in tuft. Second good also, though not so large. Third a little brown but well placed.

**Houdans** must certainly be most hardy birds, the old cocks look so well-moulted and sprightly, and this too in the most draughty part of that most draughty building. We are glad to see that the Judges are not now going in solely for the very dark birds; the winners are for the most part evenly speckled and moderate in darkness. The first-and-cup cock is a noble bird in form, but shows an inclination to colour in neck-hackle and wings.

Second, an evenly-marked bird, handsome in tuft and head and bright in condition. Mr. Dring has a good dark bird unnoticed. Cockerels.—The Judge must easily have "spotted" the first; he is inclined to be dark, with a splendid beard. Second is a splendid bird, which we liked much. These classes must be difficult to judge; we know no birds which look so different at different times in a pen as Houdans do. Hens.—Mr. Vallance's first hens are magnificent, very evenly speckled; their combs are singularly globular for Houdans, and their heads large. Second are much the same in colour, but less. 1083 (Quibell), highly commended, good. Pullets.—Houdans must be a variety which grow late, for there is much difference in the size of hens and pullets. First pair are not very remarkable, one of them has already some scale on feet; second have fine tufts, but one appeared to us wry-tailed; third we liked as well as any in the class.

Mr. Bally judged all the French classes.

**SPANISH.**—Decrepitude seems too much the normal state of Spanish cocks. In this class Mr. Jones takes both prizes and the cup. His birds are very smooth in face; the wattles of the second are very open—an eyesore, in our opinion. Cockerels.—We much like the form of the first. His tail feathers are well formed and grown—a minor point certainly, but still not to be forgotten when so many rotten-tailed birds are shown; his face is large and not abnormally developed. Second has a well-serrated comb, a nice face and indifferent carriage. Third a smaller face, but he is a pretty bird in good condition. Hens.—The cup hens are fresh-looking, with good round face. Second another excellent pair in blooming condition. Mrs. Allsopp's birds do credit to her feeder. Pullets.—Both prize pairs are good in head and condition, the first slightly the largest.

Mr. Bally judged the Spanish classes.

**HAMBURGERS.**—Black Hamburgs are fortunate in having two cups offered them, but the birds shown well merit them. The variety now seems a popular and a thoroughly-established one. The first cock is perfection in comb, colour, and style. Second not quite so stylish, but very good. Third one of the brightest-coloured birds we have ever seen; his sickles are fine, and his comb as nature made it. There are many other excellent birds in the class. Hens.—The cup pairs are beautiful in form, gloss, and comb. Second well placed; their combs are even and pretty. Third are not quite so perfectly matched. We fear Mr. Serjeantson must be giving up the breed, his birds are priced so low.

**Golden-pencilled cocks.**—The cup goes to Mr. Walker's beautiful bird, which we have noticed in a former report. Second carries his tail too much up, his comb is natural, his neck-hackle dark. Third somewhat too coppery in tail, and with a flaw in comb; he is an old bird. We like Messrs. Duckworth's highly-commended bird. *Silver* cocks are few, and not very good. First has a pretty comb and fine sickles, fairly edged. Second shows a little brown in tail. Third is younger, and a pretty little bird.

**Golden-pencilled hens.**—Here the Judge has gone in for the smaller and finer barring. The first pair are both well-barré, one better than the other; their ground colour is rich. Second a pretty pair, better marked on breast than one often sees them. Third not well-barré in tail. Good birds with the coarser barring are shown by the Duke of Sutherland, Messrs. Duckworth, and Mr. Davison. *Silver* hens.—The cup pair are singularly clean in neck-hackles, and well-barré all over. Second and third fair average birds.

**Golden-spangled cocks.**—The cup bird has one of the best combs we ever saw on a spangled bird. He is marked "sold." Second is not so heavily spangled, and has not such a good comb. We preferred the third, a very large bird. *Silver* cocks.—We do hope that combs are now less trimmed in these classes than formerly. First is a noble bird with grand carriage, fine comb, and round spangling. Second too heavy in comb, well marked. Third not perfect in comb, but we like his round spanglings. Hens.—The cup is awarded to the first Golden pair; they are beautifully marked, but certainly the hens of this variety do not equal the Silvers in form. Second are in better condition than most birds in the class. Third with small very round spangling. *Silver* hens.—First are very pretty, their spangling moderately heavy. Second much the same, but not so well marked on wing. Third have smaller but very even spangling. All the class are remarkable for good condition. Mr. Dixon judged the Hamburgs.

We must defer our criticism on the remaining poultry classes till next week, so many are they, and require careful inspection from the closeness of competition. We may remark as a postscript that since we wrote the earlier part of our report green food has been given daily to all the birds. We thank the authorities gratefully for this attention.

Mr. James Walker's first-prize White gander and Goose weigh 58 lbs. 9 ozs.; Mr. J. K. Fowler's second-prize White gander and Goose, 53 lbs. 4 ozs. Mr. James Walker's first-prize Gray gander and Goose weigh 51 lbs. 9 ozs.; Mr. F. E. Richardson's second prize, 39 lbs. 6 ozs. Mr. Edward Arnold's first-prize Turkey

cock weighs 83 lbs. 12 ozs.; and Mr. W. Wykes' second-prize Turkey cock, 84 lbs. 8 ozs. Mr. H. J. Gunnell's first-prize Turkey cock, hatched in 1876, and seven months old, weighs 29 lbs.; and Mr. W. Wykes' second-prize Turkey cock, six and half months old, weighs 24 lbs. 10 ozs. Mr. George Daft's first-prize pair of Turkey hens weigh 50 lbs.; and Mr. E. Kendrick's second-prize pair, 40 lbs. 8 ozs. Mr. W. Wykes' first-prize pair of Turkey hens, six and half months old, weigh 82 lbs. 3 ozs.; and Mr. E. Arnold's second-prize pair, 81 lbs. 12 ozs. Mr. James Walker's first-prize Aylesbury Duck and drake weigh 21 lbs. 9 ozs.; and Mr. J. K. Fowler's second-prize Duck and drake, 20 lbs. Mr. James Walker's first-prize Rouen Duck and drake weigh 20 lbs. 6 ozs.; and Mr. Robertson Gladstone's second-prize Duck and drake, 19 lbs. 10 ozs.

#### PIGEONS.

In this department of the Bingley Hall Exhibition we have this year one or two innovations, the chief of which is the introduction of the single-bird system throughout the whole of the classes instead of confining it as formerly to the adult Carriers and the Pouters. To this, combined with the abolition of the guinea subscription, another subscription instead of an entry fee of 5s. per pen, is no doubt to be attributed the increase in the number of entries from 375 last year to 541 on the present occasion. The general quality of the specimens has, to our thinking, also increased in equal ratio, for the very fact of exhibitors having to show a pair of good birds instead of only a single specimen no doubt often kept many celebrities in their owners' lofts, or caused them to be sent to other places where the single-bird system was adopted, simply on account of the immense difficulty of obtaining suitable matches. In the pair system accuracy in matching is the chief element of success, and often pulls off the prize in favour of inferior birds in regard to general properties over competitors of higher quality on the whole, but lacking in this one respect. To win in the show pen a pair must be a pair in every sense of the word: hence the improved quality of the Show generally on the present occasion. Another innovation, and one which we do not think is very acceptable to exhibitors, is the reduction in the amount of the first prize from £3 to 80s. The care of the birds while in the Exhibition is again placed in the hands of Mr. J. W. Edge, an old and experienced fancier, and his exertions for the welfare of his protégés will no doubt be duly appreciated by their owners, and this is a point which might be copied with advantage by the managers of many other exhibitions, who too frequently commit to the care of persons utterly unqualified for the task the care of collections of birds worth, perhaps, thousands of pounds. The birds were shown in the usual tiers of pens three deep round the gallery of the poultry bay; but the arrangement of the different varieties was very badly managed. The numbers seemed to run up and down the pens in a very indiscriminate manner, and the Carriers and other varieties which should have been placed high to be seen to advantage were relegated to the bottom tier, and *vice versa*. Having had our say in regard to the general arrangements, we now pass on to a few remarks in regard to the birds.

First on the list stood the Black Carrier cocks, twelve in all, and a very fair collection they are; but the best bird in the class, belonging to Mr. Fulton, was passed over by the Judge on account of having some white feathers underneath. The same thing, at the hands of the same Judge, occurred to this bird at Bingley Hall last year, which gave rise to the controversy in a contemporary as to whether the white crutch and vent is a disqualification in a Carrier. This, however, is not the place nor time to re-open the discussion. As it was, the first-prize cock was deficient in neck and leg, with a good eye and beak-wattle, but somewhat crowded. The second honours went to Mr. Yardley's well-known old Black cock, looking, if anything, better than ever. Third a long stylish bird, but much younger than his more successful competitors. Other birds in this class call for some notice, particularly the highly commended pen of Mr. Maynard's (1860), particularly good in beak and wattle, and altogether a most useful Pigeon; also the highly-commended pen 1856 (Gordin), a bird possessing good eye and wattle properties, and evidently shown in a natural state. Black hens mustered nine good birds, Mr. Heritage's first-prize hen being of very high character and wonderfully developed for her age (eighteen months), having thrown-up eye and wattle sufficient for a bird double her age. She was one of the birds in the winning pair which Mr. Heritage showed at Bingley Hall last year. Second (Maynard) a very stout bird with a good eye, but hollow in front of the wattle. Third (Fulton) a good bird, but of a much finer stamp than the second. The class for Dun cocks brought seven competitors into the arena, Mr. Fulton carrying off the whole of the honours in this class, together with the cup for the best adult Carrier, with the bird with which Mr. Maynard won at the Alexandra Palace Show, where he was claimed by Mr. Fulton at, we believe, £40. He is a very fine Pigeon, and both he and the second-prize bird bid fair to make winners for some time to come. The second bird was a little pale in colour and rather down-faced, but capital in eye and wattle. Pen 1976 (Maynard)

very good, particularly well made-up in wattle. 1972 (Whitehouse) also a good Pigeon, but "tall it not in Gath," very white on the thigh, and highly commended instead of a disqualification as in Black cocks. Dun hens (ten entries), all of very high character; in fact, the Duns, both cocks and hens, this year carry off the palm for superiority over the Blacks. First (Maynard) a very stylish hen, good in eye, but deficient in beak-wattle. She was, we believe, the winning hen at Bristol, second at the Alexandra, and third at the Crystal Palace Shows, and being a young bird will no doubt improve much yet. Second a meritorious bird, her faults being shortness of neck, and beak-wattle too long for our taste. Third we thought a grand Pigeon, certainly rather short in neck, but beautiful in the properties of beak-wattle, colour, and eye, and altogether to our taste a better hen than the first, belonging to the same owner. 1978 (Fulton) unnoticed, an excellent bird in beak and wattle, but no doubt passed over by the Judge, who gave great weight to style throughout, a point where she was deficient. The Any other colour class were an indifferent lot, only three out of the five entered putting in an appearance for the three prizes.

Carriers hatched in 1875.—Amongst the Blacks eleven entries, among them many birds which will no doubt be heard of hereafter. We cannot say that we were very much taken with Mr. Maynard's cup bird. He promises well in the future as regards making-up plenty of wattle and eye, and is a good colour, but he possesses one very great fault in our opinion in being very throaty. The second-prize bird of the same owner is the first-prize young hen at the late Palace Show, and is very stout in beak and wattle for a young hen. Third (Heritage) a very stylish bird, but rather short in face. Pen 1992 (Fulton) a rare-necked Pigeon, and one which shows itself to advantage; excepting a little hollowness in beak-wattle, a capital bird. In young Duns Mr. Maynard again comes to the fore with one of his Alexandra Palace winners, the bird which was the winner at that show being passed over here unnoticed, perhaps on account of being so well developed. Second a good bird, but rather coarse. The Any other colour class does not call for any particular notice.

Pouter cocks, Red or Yellow, had only three entries, Mr. Fulton taking first with a good Red, as he did also with a good hen of the same colour in the next class. The class for Blue Pouter cocks brought six excellent birds, as may be inferred by five out of them being noticed by the Judge. The cup for the four classes of Pouter hens was gained by a fine Blue belonging to Mr. Fulton, which, however, was run hard for it by the Red of the same owner. In White Pouter cocks the Judge evidently gave the preference to the smaller-girthed birds, Mr. Pratt winning first with a tall, graceful, narrow-girthed specimen, but small in crop, Mr. Fulton's second-prize bird being larger in crop, but of stouter build. In White hens Mrs. Ladd was first with a bird of like description as the first White cock; in fact, the points which seemed to have weighed most with the Judge throughout the whole of the Pouter awards seemed to have been principally girth, length, and carriage. In Pouter cocks, any other colour, there were only two birds to compete for the three prizes, but Mr. Pratt's well-known Black being first, and also wresting another cup to his owner from the cocks in the other classes. Pouter hens, any other colour, were not very praiseworthy.

Almond Tumblers had eight entries, cocks and hens competing together. Mr. Yardley carried off the cup with an excellent bird, rich in his ground colour, very handsomely spangled, and good in head properties, Mr. Fulton's second-prize bird being too dark about the neck, with a good flight and tail, and not nicely broken on the shoulder; his third-prize, a hen, being good in colour, but very inferior in head points, being long and narrow. Mr. Ford and Mr. Yardley showed two capital hens, the former being a little out of condition, and that of the latter was about one of the best-headed birds in the class, having other good properties to match. In Short-faced Tumblers Mr. Yardley was again first with the well-known Yellow Agate cock which won first at the Crystal Palace, Mr. Fulton being second and third with a pretty Black Mottle and a poor Kite, the latter out of condition. Mr. Woodhouse's little Blue Baldhead cock won the cup for the Short-faced Tumblers; Mr. South being second also with a Blue, but of a much stronger character than his more successful rival. A neat Red was third. In Beards an excellent coloured Black belonging to Mr. South was first, Mr. Woodhouse following with a Blue.

Long-faced Tumblers, Long-muffed, and Clean-legged mustered very strongly, being largely supported by varieties peculiar to the neighbourhood of Birmingham. In the former class the winners were Black Mottles and Black Saddles respectively; while in the latter class two pens were left out in the cold on account of being entered in the wrong class, their proper place being amongst the Short-faces. One a rich Yellow Mottle would undoubtedly have received at least a mention had it been in its proper place; as it was, the prizes went to a handsome Red and a Yellow Mottle in the order mentioned.

In *Barbs*, an excellent Red rather out of condition won the



cup in competition with the Trumpeters, Blacks being second and third. Mr. Stanley was successful in carrying off first and second honours for Barbs hatched in 1875 with two promising Blacks, the third being a Yellow rather doubtful as to age.

Mr. Fulton won first with a foreign Black Trumpeter, Mr. Shaw taking the second and third honours with a Mottle and a capital White.

A score specimens competed for the prizes for Red or Yellow Jacobins, first going to a very close-hooded Yellow of Mr. Fulton's, Mr. South being second and third, the second bird being a good but large Red. The Any other colour class does not show any very marked signs of progress, the only merit of the winning birds being that they were small and their colours undoubtedly good, but the properties of hood and chain, so much coveted in the Jacobin, were very indifferent, and it seemed as if the Judge, having none of the other properties of the Jack to work on, was thrown on colour as his criterion in making his awards.

*Dragoons* mustered strongly in all the colours, Blues having the preponderance, and in this class we find a new exhibitor carrying off the cup for the best bird in the Show in the face of all the well-known veterans in the fancy; we congratulate him on his encouraging commencement. Mr. Woods was first and second with beautiful Yellows in the next class, the third being a good bird, but rather too heavy for our taste. The first and second Silvers were also heavy, but were aged specimens. The Any other colour prizes went first and second to Whites, and third a very handsome Grizzle.

The classes for Short-faced *Antwerps* in Birmingham, the home of the variety, as was to be expected, comprised *la crème de la crème*, all the known breeders being represented, and the competition was, of course, proportionately severe. Mr. Bradley won the cup with a very fine Silver Dun, shown in excellent condition. The Blues, as usual, were the most inferior as to quality, the best bird in the class being passed over on account of having a stiff wing. In Red Chequers Mr. Gamon's celebrated old cock was first. In Blue Chequers Mr. Ludlow was as usual unapproachable.

In the *Homing* class the birds were not flown. A spirited-looking Red Chequer was first, but to this variety the old adage, "handsome is as handsome does," very appropriately applies.

In *Runts* only the three prizewinners reached 2½ lbs., the others were all considerably under that weight.

*Fantails* were of fair quality, many of the specimens being too large.

The cup for the *Runts*, *Fantails*, and *Archangels* went to the latter for one of the best specimens that has been seen for some time.

We understand that the Judge censured the whole class of *Nuns* on account of trimming.

There were some good coloured birds among the *Swallows*, but the markings were not so good as we have seen them. *Magpies* seemed rather coarse.

In *Turbits*, Red or Yellow, an extraordinary good coloured bird was first, and a good Black won in the Any other colour class, both specimens being the property of Mr. Cresswell.

The *Foreign Owls* were all Whites, and the winners in the English varieties all Blues. This class was well filled, but the general quality indifferent.

The Any new variety class is always an interesting feature in these Shows, duplicate prizes as usual being always awarded. On the present occasion there are forty entries, and the Judge affixing a note to his awards styling them a superb collection, which indeed they are. The two first prizes go to a beautiful Satinette belonging to Mr. Ludlow and Mr. Yardley's handsome Blondinette respectively; the two seconds a Fire Pigeon and a Red Priest; and the two thirds to a Dark Grey Frillback and a novelty, which we think is a cross between a Burmese and a Scandarnou. The rest of the class is made up of Roman Runts, Monks, Turbites in all colours, peaked and plain-headed Ice Pigeons, Pigmy Posters, and Brunsicks, forming altogether a class of great variety and interest.

**BRABHA FOOTRAS (Dark).—Cock**—1, Horace Lingwood, Creeting. 2, T. F. Ansell, Cowley Mount, St. Helena. 3, E. Kendrick, jun., Lichfield. 4, Ryder, Hyde, Manchester. 5, Lady Gwydyr, H. Lacy, J. H. Jones, T. F. Ansell, R. P. Percival, E. O. Peake, Horace Lingwood. 6, F. J. Cotterill.

**BRABHA FOOTRAS (Dark).—Cockerels**—Cup and 4, Horace Lingwood. 5, Hon. Mrs. A. B. Hamilton, Ridgmont, Woburn. 6, J. F. Smith, 5, T. Pye. 7, Lady Gwydyr, J. (Jackson, H. J. Storey, Hon. Mrs. A. B. Hamilton, J. Lyon, E. B. Wood, E. Pritchard, G. F. Whitehouse, C. Penn, Miss D. Penant, Hon. Mrs. A. B. Hamilton, J. F. Smith, W. Birch, J. Mitchell, J. H. Nicholls.

**BRABHA FOOTRAS (Dark).—Hens**—1, T. F. Ansell. 2, J. F. Smith, Sheffield. 3, H. B. Morrell, Cae Mawr. 4, Newnham & Manby, Wolverhampton. 5, H. Lacy, T. F. Ansell. 6, Hon. Miss D. Penant. 7, G. Maples, jun., L. Wright. 8, E. Pritchard. 9, E. B. Morrell, Rev. A. Van Straubenzee, J. Rook, S. B. Gwynn.

**BRABHA FOOTRAS (Dark).—Pullets**—Cup and 4, R. P. Percival. 5, Horace Lingwood. 6, T. F. Pye. 7, Newnham & Manby. 8, Hon. Mrs. A. B. Hamilton. 9, E. Pritchard. 10, J. F. Smith. 11, E. Kendrick, jun. 12, W. Birch. 13, F. Bennett. 14, R. P. Percival. 15, E. Kendrick, jun. 16, Hon. Mrs. A. B. Hamilton, Lady Gwydyr, E. Pritchard, Rev. A. Van Straubenzee.

**BRABHA FOOTRAS (Light).—Cocks**—Cup, R. E. Horsfall, 3, R. P. Percival. 4, Horace Lingwood. 5, J. C. Bloodworth. 6, Mrs. W. C. Drummond, J. T. Hinks, R. Bird, S. H. Lloyd. 7, C. T. A. Dean, P. Haines.

**BRABHA FOOTRAS (Light).—Cockerels**—1, R. E. Horsfall. 2 and 3, H. O. White. 4, Horace Lingwood. 5, J. Widdowson. 6, W. Tedd. 7, H. C. White. 8, T. Webb. 9, A. Dean. 10, J. J. Cotterill.

**BRABHA FOOTRAS (Light).—Hens**—Cup, Mrs. A. Tindal. 2, F. J. Cotterill. 3, W. H. Hamaker. 4, R. P. Percival. 5, Mrs. J. P. Haines. 6, Horace Lingwood. 7, R. E. Horsfall. 8, E. Stephens. 9, Mrs. Davidson. 10, H. O. White. 11, C. H. Widdowson. 12, H. B. Hamilton. 13, J. Widdowson. 14, Mrs. Holmes. 15, Mrs. H. Foulkes. 16, C. H. Wolff. 17, J. Birch, jun. 18, T. Tedd. 19, G. W. Pettit. 20, H. Chawner, jun. 21, J. Turner. 22, W. H. Hamaker. 23, T. Webb. 24, C. H. White. 25, Thora. 26, J. Benton. 27, C. H. Widdowson.

**SELLING CLASS (Brabha Footras, Light or Dark).—Cocks**—1, G. F. Whitehouse. 2, E. Pritchard. 3, M. Leno. 4, R. Hargreaves, J. Nook, W. Tedd, H. Chawner, F. Holbrook, J. K. Fowler, A. Bamford, E. B. Morrell. 5, Mrs. W. C. Drummond, R. P. Percival, H. Bradburne, M. Leno.

**SELLING CLASS (Brabha Footras, Light or Dark).—Hens or Pullets**—1, T. Webb. 2, Mrs. H. Foulkes. 3, M. Leno. 4, G. W. Pettit. 5, Newnham & Manby. 6, J. C. Bloodworth. 7, R. Hargreaves, E. Freer, Hon. Mrs. A. B. Hamilton. 8, Mrs. A. B. Hamilton. 9, E. Pritchard. 10, J. K. Fowler. 11, J. Lyon. 12, F. Holbrook. 13, H. Lloyd. 14, J. Rook. 15, T. Pye. 16, Rev. A. Van Straubenzee. 17, E. Pritchard. 18, J. Bloodworth. 19, M. Leno. 20, R. Hargreaves, H. Yardley.

**DOCKINGS (Coloured except Silver-Gray).—Cock**—Cup and 2, Mrs. Arkwright, Sutton Scarsdale. 3, Mrs. Armitstead, Ingham. 4, A. Darby, J. Walker. 5, Mrs. T. W. L. Hind.

**DOCKINGS (Coloured, except Silver-Gray).—Cockerel**—1, T. C. Burnell, Michal. 2, Mrs. Arkwright. 3, G. A. Baker, E. Kendrick, jun., Newnham & Manby. 4, Rev. J. F. Cotterill. 5, Miss J. Whitby, Newton St. Loe. 6, Rev. J. G. Baker. 7, Moser, A. Bamford, J. White. 8, H. Hyde. 9, L. Pillington.

**DOCKINGS (Coloured, except Silver-Gray).—Hens**—Cup, J. White, Waraby. 2, Rev. E. Bartram, Berkhamstead. 3, Mrs. Arkwright. 4, Rev. E. Bartram, Mrs. Arkwright, J. Moser. 5, C. T. O. Burnell.

**DOCKINGS (Coloured, except Silver-Gray).—Pullets**—1, T. C. Burnell. 2, Mrs. Arkwright. 3, Rev. E. Bartram. 4, J. Drewry. 5, J. White, Mrs. Arkwright.

**DOCKINGS (Silver-Gray).—Cock**—Cup, G. E. Cresswell, Early Wood, Bagshot. 2, Lord Bagot, Engleley. 3, W. H. Davidson, Woburn Sands.

**DOCKINGS (Silver-Gray).—Cockerels**—1 and 2, Lady Bagot. 3, G. Maples, jun. 4, T. J. Harrison, Lady Bagot. 5, Walker, W. W. Rutledge. 6, Rev. J. F. Newton.

**DOCKING (Silver-Gray).—Hens**—1 and 2, O. E. Cresswell.

**DOCKING (Silver-Gray).—Pullets**—Cup, T. C. Burnell. 1, Mrs. Armitstead. 2, Lord Bagot. 3, Cheesman.

**DOCKINGS (White).—Cock**—Cup, O. E. Cresswell. 2, Mrs. Haynes, Fordington. 3, J. Robinson.

**DOCKINGS (White).—Cockerel**—1, Mrs. Haynes. 2, Miss Fairhurst, Ormalkirk. 3, W. Badger, A. Darby.

**DOCKINGS (White).—Hens**—1, J. Robinson, Vale House, Garstang. 2, Mrs. Haynes. 3, O. E. Cresswell.

**DOCKINGS (White).—Pullets**—Cup and 2, O. E. Cresswell. 1, T. C. Burnell.

**SELLING CLASS (Dorking).—Cocks**—Price not to exceed 40s.—1, Miss J. Millward. 2, W. W. Rutledge, Shortland. 3, S. Jefferson. 4, Lord Sudeley.

**SELLING CLASS (Dorking).—Hens or Pullets**—Price not to exceed 40s.—1, J. K. Fowler, Aylesbury. 2, H. Yardley, Birmingham. 3, J. Drewry. 4, M. Cheesman. 5, W. W. Rutledge. 6, S. Burn.

**COCHIN-CHINA (Cinnamon and Buff).—Cocks**—Cup and 4, W. A. Burnell, Southwell. 5, J. Walker, Spring Mount, Reebdale. 6, and 7, W. A. Taylor, Manchester. 8, Mrs. Allcock, J. Cattell, J. Bloodworth, H. Tomlinson, W. A. Taylor, G. H. Procter, W. K. Ryland. 9, D. Young, Mrs. A. Tindal.

**COCHIN-CHINA (Cinnamon and Buff).—Cockerels**—1, J. Cattell, Edgaston. 2, H. Tomlinson, Birmingham. 3, Lady Gwydyr, Stoke Park, Ipswich. 4 and 5, W. A. Taylor. 6, Rev. G. F. Hodson, W. A. Taylor. 7, Mrs. Allcock, W. H. Crabtree, H. Tomlinson. 8, Henry Lingwood. 9, J. K. Fowler, G. H. Procter, Mrs. H. Shutt, Mrs. A. Tindal. 10, J. E. J. Draper, W. A. Burnell. 11, C. Bloodworth. 12, A. Baines, Mrs. H. Shutt.

**COCHIN-CHINA (Cinnamon and Buff).—Hens**—Cup, G. H. Procter, Durham. 2, A. Darby. 3, H. Tomlinson. 4, W. A. Taylor. 5, W. A. Taylor. 6, R. Harris. 7, R. P. Percival, W. F. Ryland, Mrs. H. Shutt, J. Cattell, S. E. Gwynne. 8, J. Rook, W. H. Crabtree. 9, Miss Wiggins, H. Tomlinson.

**COCHIN-CHINA (Cinnamon and Buff).—Pullets**—1, Mrs. A. Tindal, Aylesbury. 2, W. A. Burnell. 3, G. H. Procter. 4, R. P. Percival. 5, Henry Lingwood. 6, W. F. Ryland. 7, H. Tomlinson. 8, Rev. G. F. Hodson. 9, W. A. Burnell, Mrs. A. Tindal. 10, A. D. case of W. A. Burnell. 11, W. A. Taylor. 12, G. H. Procter, Mrs. H. Shutt, W. A. Burnell. 13, J. Draper, W. F. Ryland, Mrs. Allcock, A. Darby, W. H. Crabtree, A. J. E. Swindell, W. F. Ryland, C. W. H. Crabtree, D. Gibson, A. J. E. Swindell, J. Cattell, J. Y. Moleley.

**COCHIN-CHINA (Brown and Partridge-feathered).—Cock**—Cup, H. Lacy, Hedden Bridge. 2, Mrs. A. Tindal. 3, H. Lacy. 4, E. Tadmam, W. A. Taylor. 5, Lady Gwydyr, W. A. Taylor. 6, E. Tadmam. 7, C. Stretch.

**COCHIN-CHINA (Brown and Partridge-feathered).—Cockerels**—1 and 2, Mrs. A. Tindal. 3, Mrs. E. Tadmam. 4, F. Bennett. 5, G. Lamb, C. Sidgwick, R. P. Percival, J. H. J. Jones, J. J. Waller. 6, Mrs. A. Tindal. 7, W. A. Taylor.

**COCHIN-CHINA (Brown and Partridge-feathered).—Hens**—1 and Cup, T. Stretch, Ormalkirk. 2, Mrs. A. Tindal. 3, T. Aspin. 4, Mrs. J. Betts, W. A. Taylor. 5, R. P. Percival. 6, H. Lacy. 7, H. Yardley. 8, Tadmam.

**COCHIN-CHINA (Brown and Partridge-feathered).—Pullets**—1, R. P. Percival. 2, Mrs. A. Tindal. 3, G. Lamb, Ormalkirk. 4, J. N. C. Pope. 5, J. J. Waller. 6, W. A. Taylor. 7, J. K. Fowler. 8, Lady Gwydyr, T. Stretch. 9, E. Tadmam. 10, H. Tomlinson.

**COCHIN-CHINA (White).—Cock**—Cup, G. H. Procter. 2, W. A. Burnell. 3, Capt. G. A. Talbot. 4, Mrs. A. Tindal. 5, J. K. Fowler, H. W. Tomlinson, J. H. Nicholls. 6, R. P. Percival.

**COCHIN-CHINA (White).—Cockerel**—1, Mrs. A. Tindal. 2, J. H. Nicholls. 3, Lady Gwydyr. 4, R. A. Boissier. 5, G. H. Procter, G. Lamb, H. Tomlinson. 6, E. T. F. Chisner, W. A. Burnell.

**COCHIN-CHINA (White).—Hens**—Cup, G. A. Talbot. 2, Mrs. A. Tindal. 3, J. Bloodworth. 4, W. Whitworth, jun. 5, G. H. Procter, Capt. G. A. Talbot, R. A. Boissier, R. Chase. 6, R. Chase.

**COCHIN-CHINA (White).—Pullets**—1, Mrs. A. Tindal. 2, Lady Gwydyr. 3, R. Chase. 4, Mrs. A. Tindal. 5, J. K. Fowler, W. A. Burnell, G. Lamb, W. Whitworth, E. T. F. Chisner, H. W. Tomlinson, S. E. Harris. 6, W. Whitworth, jun. 7, Turner, Mrs. J. T. Holmes.

**COCHIN-CHINA (Black).—Cocks**—1 and 2, A. Darby. 3, Miss A. Brooke, W. Whitworth, W. Bagger. 4, Lady Gwydyr, W. Bagger, J. Turner.

**COCHIN-CHINA (Black).—Hens or Pullets**—1, T. Aspin. 2, E. Kendrick, jun. 3, Mrs. F. J. Cotterill, Lady Gwydyr. 4, Mrs. J. Betts, G. W. Hibbert. 5, J. Turner.

**SELLING CLASS (Cochin-China, any colour).—Cocks**—1, R. P. Percival. 2, W. H. Crabtree. 3, W. A. Burnell. 4, W. A. Taylor. 5, C. Sidgwick, T. Stretch, J. J. Waller, J. Cattell, A. D. H. C. Christy. 6, W. Whitworth, W. A. Burnell.

**SELLING CLASS (Cochin-China, any colour).—Hens or Pullets**—1, W. A. Taylor. 2, E. Tadmam. 3, A. Darby. 4, D. Young. 5, W. A. Burnell. 6, H. Tomlinson. 7, C. Sidgwick, T. Stretch, H. Yardley, J. J. Waller, J. Cattell, R. P. Percival. 8, J. K. Fowler. 9, W. A. Taylor. 10, Mrs. J. Betts. 11, J. Draper.

**MALAY—Cock**—1, K. Hawkins, Seaham. 2, W. H. Sabin, Moseley. 3, Miss A. Brooke, T. Cropper.

**MALAY—Cockerel**—Cup, Rev. H. Fairlie, Kirkcaldy, Manse, Ayrshire. 2, Miss A. Brooke. 3, Rev. N. J. Ridley, Rev. H. Fairlie, J. Heape, W. B. Payne.

**MALAY—Hens**—Cup, W. B. Payne, Shrewsbury. 2, B. Hawkins. 3, W. B. Payne, W. H. Sabin. 4, G. E. Meredith, G. Burnell. 5, J. F. Walton.

**MALAY—Pullets**—1, Rev. H. Fairlie. 2, W. B. Payne. 3, W. H. Sabin. 4, Miss A. Brooke, G. Burnell.

**CREVE-COEUR—Cock**—1, W. H. Crabtree, Levenshulme. 2 and 3, W. Catlack, jun., Ladbroke. 4, G. M. Sanders. 5, R. E. Fowler, F. Bennett, J. J. Malden. 6, J. J. Malden, W. B. Payne.

**CREVE-COEUR—Hens or Pullets**—1 and Cup, W. Dring, Faversham. 2, H.







## WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 9—15, 1875.	Average Temperature near London.			Sun Rises.		Sun Sets.		Moon Rises.		Moon Sets.		Moon's Age.	Clock after Sun.	Day Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.			
9	Tu	Royal Society at 8.30 P.M.	46.7	34.9	40.8	56	af 7	49	af 8	31	af 1	16	af 8	12	7 19	843
10	F		47.0	33.8	39.9	58	7	49	8	50	1	47	4	13	6 52	844
11	S	Royal Botanic Society at 8.45 P.M.	46.5	33.6	39.5	59	7	49	8	17	2	22	6	14	6 24	845
12	SUN	8 SUNDAY IN ADVENT.	48.0	37.0	42.5	59	7	49	8	59	2	55	7	●	5 56	846
13	M	Royal Geographical Society at 8.30 P.M.	47.5	36.5	42.0	0	8	49	8	0	4	17	9	16	5 28	847
14	Tu	Royal Medical and Chirurgical Society at 8.30 P.M.	46.9	34.3	40.6	1	8	49	8	21	5	17	10	17	4 59	848
15	W	Society of Arts at 8 P.M.	47.0	33.6	40.8	2	8	49	8	52	6	56	10	18	4 30	849

From observations taken near London during forty-three years, the average day temperature of the week is 48.2°; and its night temperature 34.8°.

## COVERING OUTSIDE VINE BORDERS.



AS this subject has been brought before the gardening world, it has always been under such circumstances as elicited some fresh idea, if not new fact, bearing on its utility or otherwise; but it cannot be denied that even now it is one of those subjects on which divers opinions still exist, and most likely all will never be brought to one mind upon it. As every fresh experiment in the case adds something new on the matter, some little digest may, perhaps, not be without its advantages, the more especially at a time when there is a hope that the discussion raised upon it may receive some confirmation or the reverse by the time the covering is likely to be removed. The experience of past years ought to assist us all in coming to some conclusion on the matter, for it has nothing new about it—in fact it would not be easy to trace backward how long it has been adopted; but the diversity of opinions on its utility leaves much doubt on the mind of the amateur—now-a-days a very important class of Grape-growers—how to act in the matter, especially when one writer strenuously advocates its adoption, and another in language equally strong condemns it. That there may be a little truth in the assertions of both it is easy to believe, and that both may be right under their respective circumstances is also possible, and very likely to be the case.

As has been stated above, the covering-up of Vine borders has nothing new about it; as readers of gardening periodicals will remember the subject having been prominently brought before the world at various times since London administered what I may call horticultural law through his many publications, and coverings of one kind or another have been more or less urged at various times, possibly most so some twenty or twenty-five years ago, when the covering-up of Vine borders by some waterproof covering, as galvanised iron, wooden shutters, or glass, was so much insisted upon, in some cases quite one-half the original cost of the Grape house was incurred in protecting the border from the autumn rains and winter frosts. Then again followed a reaction: those who had ridden the hobby too hard found to their cost that they had run to the other extreme, and covering-up was condemned, to be revived somewhere else and in another form. While at the present day it would not be saying too much if we affirmed that it had as many advocates now as at any former time, but they are of another class, and do not quite follow out the hobby in its entirety as did their predecessors; while not a few that do cover-up their borders do it for quite another purpose altogether to what it was done in years gone by, as will be shown.

There are two distinct purposes for which Vine borders are covered, and which have little or no connection with each other—the one being with an object to protect the border containing the roots of Vines intended to be forced as early as possible, and the other to enable the crop of

Grapes that may be hanging in a ripened condition in the autumn to remain as long as possible without deterioration or decay in any way. The wide difference between these cases is such as necessarily to call for a wide difference in their treatment, and consequently we shall treat them as distinct. Beginning with those intended to produce early Grapes first, we need hardly say at the outset that there is even here much difference of opinion on the utility of a covering, and not a few eminent Grape-growers too condemn it. We nevertheless, to a certain extent, recommend it where circumstances like those we now adduce render the production of early Grapes a matter of importance.

Whatever improvement may have taken place in Grape-growing as a whole—and most certainly marvellous feats have been accomplished—there seems less anxiety to produce early Grapes at the present day than there was twenty or thirty years ago, the direction of growers of late years has been to preserve those that do ripen in the autumn to a later period in the winter and spring in a good condition rather than have fresh fruit ripe at that time. This is so far commendable, as really good old Grapes are no doubt better than new Grapes: hence hard forcing is on the whole less practised than of yore; the late Grapes being often supplemented, or rather succeeded, by those grown in pots, the convenience of most places where there is much glass allowing this to be done, and what is of more importance, better crops from those grown in the ordinary way is the result. Perhaps it may be asked, What has this to do with covering-up Vine borders outside? Well, it has a great deal to do with it; for there is an immense difference between urging on a house of Grapes to have them ripe by the middle of April and having to accomplish that object a month later. In the former case all the assistance possible inside and out will be required to accomplish the object, and many sacrifices made, while the other will be a much easier affair, and most likely the produce superior. In the former case the Vines, I need hardly say, ought all to be grown inside the house where they are more immediately under command; in the latter they may be partly in and partly out, and yet a fair share of success may be expected without any covering-up. But suppose there are cases (and I know there are many such) where early Grapes are wanted as soon as it is possible to obtain them, and the space inside the house is a very limited one for the roots to occupy, and in fact the bulk of these roots are in the outside border, it can hardly be said that to expose that border to the severities of a hard winter can be beneficial to those Vines whose roots ramify in all directions through it, and in some cases as near the surface as to be within reach of the frost; but this latter event is not of often occurrence, as in a usual way the Vine roots lie deeper than to be directly frozen from the top in ordinary years. However, it cannot be denied but that the frost and melted snow must lower the temperature of the soil so as to be quite unfit for the roots of the Vine, whose tops are enjoying a temperature some 80° or 40° higher, the result most likely being that if the roots occupying the

small border inside are not sufficient to maintain the top in a becoming way, the plant pushes out roots from its stem and so feeds on the atmosphere, deriving a kind of spurious nourishment therefrom that fails it later on in the season when that moisture is withheld. Now this all points to the propriety of an outer covering, and we may now consider what that covering should be.

Before entering on this subject I may say that I am no advocate for costly appliances if simple and inexpensive modes can be found to effect the same object, and in the matter of Vine-border covering I do not know that I would make any great sacrifice in the way of appearance so called, because they have usually to be put in use where external tidiness is of less importance than in summer. Nevertheless, to those to whom the looks of a thing is of much consequence, and who do not object to expense, a waterproof covering of some kind that can be removed when necessary will no doubt be found the best for such a purpose; and galvanised iron, wooden shutters, zinc or asphalt frames, or glass lights have all and each their claims to notice, the great thing being to shut off the bulk of the autumn rains and keep out the frost and snow, and, in fact, to retain as much of the heat that may be in the soil in September as can be until as late a period as possible. We have been for several years in the habit of covering-up the border of our earliest-forced vinery with dry leaves when we could obtain them, and generally we have endeavoured to do so early in October before the heavy autumn rains had wetted it to any depth, and as we have made it a point to try and get the leaves dry and the job finished before any great amount of rain fell, the result has in our opinion been satisfactory. We have usually heaped the leaves on for nearly 3 feet high, treading them well, and finished off by coating the whole with a covering of turf, and as the leaves are mostly Beech or Sweet Chestnut, they give off and retain a little warmth all winter. But it is only fair to state here that although the border may be covered when it is in a nice dry mellow state, and the leaves themselves as dry as leaves can well be outdoors, yet when the covering is taken off in April the ground is invariably found wet and soddened, and no doubt would be in a worse condition as a seed bed than one that had encountered all the changes of the winter. I mention this as, notwithstanding the gentle warmth the mass of leaves may have imparted to the ground below them, I am far from certain that the fertile power of the ground is not impaired by its being denied the benefit of the winter's frost and constant contact with the air; but whether the Grapes inside would be quite so early or not is a question on which I have no hesitation in answering in the negative, and must therefore leave for others to say how much they are willing to sacrifice to attain such a result by adopting the more costly covering of glass, or something approaching it, and a more gradual exposure to the atmosphere in early spring. In our case we seldom take the leaves off until the first or second week in April, and invariably let the ground dry a day or two before it is slightly dug, and we expect the sun will supply the heat at that time which the leaves had been doing through the winter.

Having said so much on covering-up the borders of Grape houses intended for early fruit, I fear I must curtail what ought to be said on covers for those who endeavour to keep them late. I am the more anxious in this to hear the opinions of others, as I confess at once of never having practised it; but it is possibly the more important of the two, only in this case I should say that a perfect shutting-off the rain was necessary, and furthermore that covering-up with dry leaves, fern, straw, and such things are not sufficient here, as the present autumn has given some lessons that way which I daresay many readers have learned to their cost. But in my case I may say that I never knew Black Hamburgh Grapes keep so badly as they have done this autumn; they ripened well, were fleshy, coloured well, and not at all thin-skinned, and certainly not watery. Well, we all know that September was on the whole a fine month, and the rain not remarkable until after the middle of October, long before which the Grapes had been duly ripened; but being required to hang, it soon became perceptible that the moisture the border was receiving was communicated through the system to the fruit, which swelled I believe, and the juice was forced through the skin and decay set in. Such is my opinion, and if it has been noticed by others possibly some inference may be drawn that may be useful another time. The season, I need hardly say, has been a moist one, but not more so than some others in which our Grapes have kept tolerably well, and the time decay set in was

sooner than it has been customary for us to cut them and put them in bottles; but I attribute their defective keeping to the lack of water I imagine they suffered from in July and August: hence a sort of premature ripening, or rather a ripening-off, before they had attained the full size they might have done if moisture had been more plentifully supplied to their roots; this, unfortunately, we had not the means of giving at the time, and the recent experience of those producing remarkably fine Grapes point to the conclusion that water if of the suitable kind can hardly be given in too large quantities at that time if the border be properly made. But I do not remember of ever noticing Grapes in so promising a condition go off so rapidly from the causes stated above or some other of a likely kind. Whether this could have been averted by an outside covering or not is a matter open to opinion, my own being that it could; but of this I would like to have that of others, more especially of those who have lost Grapes by the late damp weather, and if anyone has had experience of the beneficial effects of an outer covering as tending to preserve their fruit well, then so much the better; as amongst the opinions then given something useful will most likely be forthcoming, and the more likely to be so if those having been unfortunate would record their misfortune as freely as they do their successes, the one affording as much instruction as the other, and in many instances more.—J. ROBSON.

### CARNATIONS IN WINTER.

THERE has been already much written on the subject of growing winter-flowering Carnations; but as I have been tolerably successful in their culture for several years, and as my practice differs in some of its details from that of your other correspondents, I may be permitted to say a few words on the subject.

There is an idea in many minds that Perpetual Carnations are difficult to propagate, and that when propagated they are difficult to grow, and that after all they only supply a few odd flowers for cutting. This is not in accordance with my experience. Managed rightly they strike as freely as *Verbenas*, grow luxuriantly, and produce plants in nine months such as might be called specimens. The only secret in their cultivation is that they must never receive a check so as to be at all stunted. From the time they are put in as cuttings till they are in full flower they must be kept steadily moving. Let them stand about in small pots for three or four months, and they will never afterwards be worth their room.

February is the best time to strike them if they are intended for large plants, but they may with advantage be struck later if only small plants are wanted. There are numerous little side-shoots formed all the way up the flower-stem; these when they are  $1\frac{1}{2}$  or 2 inches in length should be pulled away from the stem with the finger and thumb; generally it will be necessary to pull the leaf at their base off with them, as they can be split away better by doing so. Sometimes they will be fit for inserting without using the knife at all; but if the bottom of the slip is at all ragged it should be cut even and then inserted firmly into light loamy soil. Those who prefer to use sand may do so at this stage; it will do no harm, but it is not necessary. Water heavily so as to settle the soil very firmly about the cuttings, and then cover with glass. The glass should not be removed even for a minute till the cuttings are rooted, which in an average temperature of  $60^{\circ}$  will take about a fortnight. They must then be very gradually hardened by leaving at first a very small opening while there is no air on the house, shutting up closely when the house is ventilated. In about three weeks or a month from the time of inserting, the glass may be removed altogether.

The simplest kind of propagating-box I know, and which I use extensively, is like those used by many people for growing *Geraniums* but deeper, and is covered by laying a pane of glass on the top. As soon as the cuttings have fairly commenced to grow they should be potted singly in 4-inch pots and kept in warmth for a few days till they recover, when they may be placed in a close cold frame or one with a slight bottom heat, and gradually hardened till by the middle of May, when they will do without any more protection. As soon as possible after this time they should be potted in their flowering pots, the fast-growing kinds into 10 or 12-inch, and others of less robust habit into pots of 8 inches diameter.

The soil used is simply a light fibry loam and charcoal. No manure either liquid or solid is ever given them. I do not think they like it. By the end of September they will have

grown into large plants and be well furnished with flower-buds. It will be necessary to house them before the least frost touches them, for they are not at all hardy. A light airy house is the place for them, with a temperature through winter not lower than 50°. They will do in a much higher temperature and the flowers will then open quicker, but the colours will not be so good and the plants will not last in condition so long. For supporting the flowers I stick birch twigs amongst and around the plants when growing; these keep them up well and do not look so stiff and formal as stakes. I only keep the plants one season, as they never look so fresh and healthy afterwards.

The kind which I have found to be the most useful is a bright red one called Belle Rose. It produces its flowers abundantly all through the winter. Purity is the best white I know, and it is highly scented. A good red-and-white-striped kind is Beauty; and Miss Jolliffe is a beautiful pink, very free-flowering, and very sweetly scented. This last differs in habit from other Perpetual Carnations. It grows more like a Pink, and an 8-inch pot is large enough for it.

Green fly is the greatest enemy winter Carnations have, and a sharp look-out should be kept for it; for if it once gains a footing it has such a chance of hiding itself from fumigating and washing that it is extremely difficult to eradicate.—WILLIAM TAYLOR.

### NOTES BY THE WAY.

OROYDON.

ONE is sometimes reminded by a trivial circumstance of the lapse of time; and when the other day I shared the hospitality of my friend the Visar of Oroydon, I could hardly believe what on comparing notes I found must be true, that it was twenty years since last I had done so. How many thoughts crowded upon our mind, and what eventful years they had been in our own personal history and in that of our nation. How much, too, had taken place in that little world of horticulture in which we were both interested, and how much there was to talk about on matters connected with some of its special subjects. It was not a time very suggestive of pleasant thoughts in relation to gardening. Heavy floods, cold winds, and the promise of a sharp frost are not kindly reminders of the joys that horticulturists delight in, yet at all times one can find something to talk about and something to see; and it may interest some of our friends to read a few notes on what I saw that dull November day in the semi-urban and semi-rural town of Oroydon.

THE VICARAGE.—Situated as it is just outside the town on the Waddon side, and protected by fields which Mr. Hodgson has in his own hands, from being outbuilt, one finds in the surroundings of my good friend a veritable *multum in parvo*. Time was when he was celebrated for his breed of Cochins, but his love for the garden has overcome that for the poultry yard; and although he still keeps fowls, yet clearly they have given way to the flowers and fruits; and anyone who wishes to see what can be done in a small place by one who has a willing heart could find no better place to gain a lesson than this vicarage garden. There is for the size of it a pretty considerable quantity of glass, and the structures are used for all purposes. Thus, there is a small stove, on the roof of which *Allamandas* and *Passiflora quadrangularis* were giving even then their brilliant and curious blooms; while beneath were plants of various families—Ferns, *Gloxinias*, &c., which are useful for house decoration, and are in themselves beautiful and interesting. Then there is an orchard house, in which Peaches and Nectarines had afforded a fine supply of good fruits; vineries, where the Grapes had indeed been gathered, but where the Vines—and many of them the newer and rarer sorts—gave evidence of health and vigour. And then there was the nattiest little fruit house that can possibly be imagined, the one thing about the place which made me in danger of breaking the tenth commandment. The garden itself showed the same taste for all things worth having. Strawberries were very fine, and Dr. Hogg was looked upon as about the best. Magnificent fruit is gathered from it every year, and the beds looked most healthy and promising. Roses, too, were fine, and here as elsewhere I found the seedling Briar highly spoken of, and it seems likely to become a very popular and useful stock. The Pear and Apple, pyramids and bushes, were in excellent order. Fine samples of that grand November Pear *Doyenné du Comice* were in excellent eating order, and the fruit room displayed a goodly number of Pears and Apples

gathered from these trees ready for future use. Lilies, too, came in for their share of attention, and seemed from the flower stalks I saw to have done very well. Then Mr. Hodgson is a devoted lover of the *Gladiolus*. He has been an exhibitor and exhibited well and successfully, and it was a pleasant thing to talk over the flowers we had grown and compare our notes together. I fear that while, like many, he has to deplore the disease amongst his bulbs, he does not believe in the degenerating theory. There are some kinds more difficult to keep free from disease than others, but they are not those which are higher bred than many which we can keep free from it, while also it makes its appearance immediately on seedlings which have never bloomed. A new site has been selected for the beds this year, and I should imagine that they will be likely to do well.

WADDON HOUSE.—The name of Mr. Philip Crowley is well known amongst the horticulturists of the metropolis; and those who have known him will not be surprised, I imagine, to hear that his place is brimfull of valuable and rare plants. It is one of those old manor houses which were at one time so abundant in the neighbourhood of our great city, but which are being gradually improved off the face of the earth. I could see that the place itself with its well-kept lawn and good shrubberies would be worth seeing. As it was, I had to content myself with going through the houses. Adjoining the mansion is a very handsome conservatory, over the roof of which rambled in wild profusion the lovely *Tacsonia Van-Volxemi*, for ever blooming, and then full of its beautiful crimson parachutes hanging down all over the house—the very perfection of conservatory climbers. The conservatory is terminated by a fernery, the floor of which slants so as to give the idea of a natural cavern, and is composed of large flat stones, such as one might expect to see on the Devonshire coast. It is heated; and the Ferns, with here and there a *Begonia* intermixed, seemed to luxuriate in their abode. The range of glass is extensive, and both in stove and greenhouse were to be seen many of the plants which have been introduced of late years, all of them seeming to be well cared for and in fine health. An orchard house was in course of erection, while the Vines were evidently in sound health.

I regretted that Mr. Crowley himself was absent and that my time was so hurried, or I might have been able to glean something more worthy of notice; but if any of the readers of the *Journal* should, during the course of next year, be visiting Oroydon and be really interested in horticulture, they would find in both of these places a good deal to interest them, and I am sure would meet with a kindly reception from both Mr. Hodgson and Mr. Crowley. There is no greater pleasure in horticulture than to go over one's garden with anyone who thoroughly loves the pursuit, while those who only come to pass away the time are a great bore and may easily be bowed out after a short visit.—D., Deal.

### PEACHES AND NECTARINES.

DIAMOND (more properly Dymond) was raised by Messrs. Veitch of Exeter. I do not possess it.

"A. W." (page 484) asks if anyone can recommend a later Peach than *Noblesse* that will ripen in the midland counties. I recommend for that purpose *Barrington* and *Rivers' Nectarine* Peach. Mine is a very cold and exposed garden, and they will ripen here. Lord Palmerston and the Princess of Wales require to be gathered and placed a few days under glass; then pare them, slice them, and eat them with sugar. So used they are good.

A good selection of Peaches would be *Early Louise*, *Early York* or *Early Alfred*, *Dr. Hogg*, *Early Ascot*, *Grosse Mignonne*, *Royal George*, *Noblesse*, *Bellegarde*, *Barrington*, and *Nectarine* Peach.

A good selection of Nectarines would be *Lord Napier*, *Elruge*, *Downton*, *Violette Hâtive*, *Rivers' White*, *Emmerton's White* (later than the previous one), *Rivers' Orange*, *Pitmaston Orange*, and *Pine Apple* to finish with it.

If "A. W." would put some chalk or lime into his soil it would greatly improve it. Stone fruit like chalk and lime.—W. F. RADCLIFFE, *Okeford Fitzpaine*.

STELLARIA GRAMINEA AUREA.—In reply to "ONWARDS" I have grown *Stellaria graminea aurea* this season for the first time, and am highly pleased with it as a carpet bedding plant, and for that purpose it will undoubtedly supersede the Golden

Feather. It is excellent for making the ground colour of carpet beds. It is easily propagated, grows freely, and is quite hardy. But I would prefer Golden Feather where it has to be used along with Geraniums, Verbenas, &c., in ordinary flower beds and borders.—B. INGLIS.

### PLANTS FOR CUT FLOWERS AND SPRAYS.

**CYCLAMENS.**—The beautiful and varied colours of these flowers and their delicate perfume entitles them to a place amongst the choicest of cut flowers. They keep fresh in water as long as any other flower, and are very suitable for button-hole bouquets. Well-grown plants are also admirable for dinner-table decoration. These may be regarded as everyday decorative plants of the first order of merit.

The Cyclamen season may be said to commence with *C. europæum album*, white and sweet, which flowers in September or earlier, the variety *rubrum* being a pale rosy pink with richly marbled foliage, and is probably the species *europæum*. *C. hederifolium*, rosy pink, flowers in September, with its white variety (*album*) is very beautiful. The bulbs of these are very large. I have seen naturalised roots nearly a foot across and producing over two hundred flowers each, and these are followed by the leaves, which are usually about half as numerous as the flowers, and are beautiful all through the winter. *C. græcum* is certainly very much akin to *C. hederifolium*, the flowers rose and white, and the foliage grand. *C. africanum*, bluish or flesh purple tips, is also of near kinship with *C. hederifolium*, but larger in all its parts. *C. nobile* is of the same class with *C. hederifolium*, they all flowering in autumn, and have splendid leaves. Except perhaps the two last all are hardy, and succeed in light rich loam enriched with leaf soil, doing well in well-drained borders, the ledges of rockwork, and in woods, where they are quite charming in autumn from their flowers, and in winter and spring by their leaves. The corms are most vigour when covered by decaying leaves, in the debris of which the plants appear to luxuriate, doing equally well in the most shaded as in the open parts. I doubt not but they would thrive in a light well-drained soil in most parts of this country, and what a charm they would give to the woodlands and rural walks when the trees are assuming autumn tints.

*C. neapolitanum*, red, flowers in early November and before the leaves, and is followed by *C. coum*, deep purplish red, which I have had blooming on rockwork early in December; also *C. coum vernum*, which usually flowers in February, and differs only in that and in having variegated foliage. *C. Atkinsoni* or *ibericum* with the varieties *album*, white with purple centre, *roseum*, rosy red, and *rubrum purpureum*, deep purple red, also flower early in winter, or on the first return of spring, and are all hardy, doing well on the ledges of rockwork; but to have their flowers during the winter months they require to be grown in pots or pans, placing their corms about their diameter apart, and covering them with soil about an inch deep. They do well in a light position in a house from which frost is excluded. Outdoors they require rather shady positions, and appear to thrive best on the limestone formation. *C. coum* and *C. ibericum* (*Atkinsoni*) flower with the leaves. After flowering under glass the plants may be placed in a cold frame, and in summer be kept in a slightly shaded position. Rich loam, with some leaf soil, and a little sandy peat with some pieces of chalk or old mortar rubbish, three parts loam to one part each the last three, with good drainage, will grow them well. They like watering overhead when in free growth.

*C. hederifolium* or *repandum* is a bright shaded deep rose colour, but varying, and flowers during early April. It also likes limestone, and to be shaded not densely in summer, and to be well drained. All the hardy Cyclamens are impatient of dry cutting winds, and should therefore have the shelter of a projecting rock in rockwork or other shelter of a wind-breaking character.

*C. persicum* is now pretty numerous in variety, and many have finely variegated or marbled leaves, which render them very effective for decorative purposes. They are easily raised from seed; plants so raised and grown-on in heat flowering within the twelvemonth from sowing. Grown in a warm greenhouse and starting early in August plants may be had in bloom by December, and to bloom well during the early winter months they require a temperature of 50° from fire heat, and ordinarily in a greenhouse the flowering will commence in February and be continued up to May. Their treatment has been so frequently given in this Journal, and is treated of in

the "Greenhouse Manual," so that I need not give any lengthened cultural hints.

**SOILLA.**—*S. bifolia* is the first to bloom, followed by *S. siberica*, both bright blue, and both do well in pots, potted in September, and brought forward in a cool house in an airy position after October. In a greenhouse they will flower by January. Of *S. bifolia* there is white (*alba*), *carnea* (red), and *rosea* (rose) varieties, all pretty. *S. amœna* is a purplish blue, and follows *S. siberica*. *S. campanulata* is light blue, and has white (*alba*) and rose (*carnea*) varieties, which flower in May or earlier, and grown in pots and forwarded as Hyacinths they flower in March or early in April. Their tall spikes of pendant bell-shaped flowers are very useful and effective. *S. autumnalis*, purplish blue, flowers in August or early September. Greenhouse or cool-house kinds are *S. peruviana*, with its corymb of blue flowers with yellow stamens. Its white and yellow varieties, with *S. ciliaris* (mauve), *S. corsica* (white), and *S. Hughii* (light blue) are all in the style of *S. peruviana*, and flower in early summer, whilst *S. japonica*, white with rosy purple, flowers in August or early September.

Squills in pots require light airy positions, a free sandy fibrous loam, with a third of leaf soil and a little sandy peat, the bulbs to be covered, and the pots to be well drained; have the diameter of the bulbs between each, and half their diameter from the sides of the pots; but some have large bulbs, as *S. corsica*, and they may be grown singly in pots twice the diameter of the bulbs. Outdoors the hardy kinds may be planted 3 inches deep in sandy soil well drained.

**BEGONIAS.**—The bulbous kinds flower from May throughout the summer; they are grown in the stove, greenhouse, and outdoors, in which latter case they require to be started in gentle heat and planted-out after the middle of June. The old *B. Evansiana* (discolor) may be mentioned as a good window plant with pinkish flowers, and is useful for our purpose, as its flowers have fragrance. *B. waltoniensis*, pink flowers of a waxy texture, the bright shining shaded green of its leaves and its crimson stems render it a fine window plant, and cut along with its leaves or as sprays is very useful for bouquets, &c. It is very accommodating, blooming continuously in a stove, and it does well as a greenhouse plant when kept dry in winter, and outdoors in summer it is, very effective.

*B. Veitchii* has large flowers of a vivid vermilion cinnabar red, 2 to 2½ inches across, and is sweet-scented. It is equally accommodating as *C. waltoniensis*; stove, greenhouse, window, or outdoors suits it.

*B. Pearcei* has yellow flowers, with leaves of a dark velvety green with lighter veins, and is very elegant, and of this there is some effective seedlings. I have no experience of it beyond a cool stove.

*B. intermedia*, vermilion red, flourishing in a greenhouse; also *B. roseiflora*, large flowers, carmine red; and *B. Richardsiana*, with elegantly cut leaves and white flowers like *B. Dregelii*, which last is very useful for cutting and does in a greenhouse, blooming in a stove all the year, it and *B. waltoniensis* being most useful.

*B. cheloni* has large salmony orange flowers, drooping, and flowers grandly during the winter in a cool stove. *B. Martiana* (*diversifolia*) is a fine subject for winter-flowering in a cool stove, and does well in a greenhouse; the flowers are rich rosy cerise, very abundantly produced.

*B. boliviensis*, glossy red, and its several varieties, which as cool-stove plants flower in early summer; and kept cool and dry up to April, and then started in gentle heat, do in a greenhouse, or may be planted-out in June in a warm sheltered position outdoors, and they will flower freely.

*B. semperflorens*, white or bluish flowers, is very dwarf and very free-flowering, with shining green leaves; it is desirable as a table plant. It flowers in a cool stove from January to May. The tuberous-rooted Begonias, of which there are many fine varieties, are especially suited for greenhouse culture when the summer occupants are outdoors, requiring only to be started in heat and removed to the house in June, and of late years in sunny positions outdoors they have been used with good effect. Planted on rockwork it is likely that many kinds will prove hardy. They require to be fresh potted when starting or required starting into growth, to be moderately watered until in free growth, then freely, but never soddened, and when the flowering is past reduce the water, withholding altogether when the plants die down, and store away in the pots in any dry place safe from frost. A compost of three parts turfy loam, one part leaf soil, half a part each old cow dung and silver



sand, with good drainage will grow them finely. Moderate pot room only is required.

Though the flowers of Begonias are not very durable, and are of the worst for travelling, they are very effective whilst they last in a cut state; and those with bright green leaves, as *weltoniensis* and *Dregal*, superb when used as sprays, which are desirable even without the flowers.—G. ABBEY.

#### APPLYING CARRION TO VINE BORDERS.

WITH reference to what has appeared in your pages lately regarding carrion, &c., as applied to Vine borders. All who have given an opinion on the subject are agreed that carrion or blood in a fresh state acts injuriously on the constitution of the Vine to which it is applied. There is not the slightest doubt, however, that the Vine is a very gross feeder, and when furnished with plenty of sound fibry roots it would be difficult to err in the matter of strong feeding, as an evidence of which I will record the case of two vineries in one of the northern counties of England. One of these vineries (when I knew them) was a Muscat, the other a Black Hamburgh house. The Muscat house was the admiration of all who saw it, the bunches being of immense size, well finished, and carried off first honours invariably wherever they were exhibited. The Hamburgh house gave good fruit of fair average size and quality, but certainly not to be compared to the other, which was a little remarkable seeing that both houses received the same treatment, the borders were made up of the same material, and so far as the casual observer could discern both houses were on an equal footing. Such, however, was not the case, as was afterwards discovered.

The main sewer from the mansion was carried down by where the vineries stood. It went straight along the front of the Muscat house border, but diverged off before touching on the Black Hamburgh border. After the lapse of years the sewage from the mansion would not pass away, when it was determined to start at the hall, open up the sewer (which was built of brick and stone cover), and follow on until they found out where the stoppage was. They reached the Muscat vinery. Here was found out the secret of the stoppage. The Vine roots had found their way through the brickwork, and the sewer was fairly choke full of clean, healthy Vine roots wallowing in the sewage accumulation of years. Herein, then, lay the secret of the almost unexampled success that had attended the cultivation of what is considered the most difficult class of Grapes to grow and finish properly; and I am pretty confident before this occurrence that the cause of their very superior well-being was unknown even to those in charge.

From such circumstances as these it is apparent that to grow Grapes of the very highest excellence the Vines must be liberally supplied with strong food. Other Vines also I have in my mind's eye, that have been a good deal heard about, are annually treated to a top-dressing of something akin to the sewer in question—namely, carcasses of dead animals decomposed and mixed with other ingredients in the form of soil, charcoal, &c., and there is not a doubt that such stimulants in one form or other play a very important part in the production of the enormous bunches that have been produced of late; but before attempting to use such strong stimulants it is necessary to have a well-drained and prepared border. Vines in vigorous health, which of course means good root-action, will be greatly benefited by such applications, but certainly not by burying carrion in bulk in a raw state.—J. B. S.

#### OUR BORDER FLOWERS—HYDRANGEAS.

If we cannot class Hydrangeas among our herbaceous plants we can afford them space in our beds and borders. They can be turned to good account both for in and out-door decoration. There was a time when many experiments were tried to produce blue Hydrangeas, but I can only entertain the idea that it is one of those unaccountable freaks that Dame Nature treats us to sometimes. I am not aware that there is any fixed law as to the sport remaining permanent; but, be that as it may, blue Hydrangeas are very desirable when they can be had. Hydrangeas will live through the winter in favoured localities. More than thirty years ago I remember seeing in Dr. Herbert's garden at Spofforth a plant of *Hydrangea hortensis* 8 feet high and as much through, that had been planted out many years; this plant had a framework of wood placed round it, the branches drawn together, the framework being filled with dry leaves, and all thatched over with

clean straw; and the plant was worthy of that protective care, for to see it loaded with its huge bundles of beautiful pink flowers during the autumn was worth going a day's journey to see.

Hydrangeas grow well in good sandy loam, peat, a little well-rotted dung, a sprinkling of chopped bones and lime rubbish mixed well together. It is a long time since *Hydrangea Hortensis* found its home among us, and plants of it are still highly prized among many of our rural families, and in some instances are looked upon as heirlooms. They are easily increased by cuttings from half-ripened shoots cut at a joint and inserted in sandy soil in heat, and also by division when they are beginning to make young growth. The variegated kind I find to be a useful plant for edging large beds with, and equally useful for indoor work. It is a pity that we have not a golden sport to vie with the one we have. The plants can be lifted from the ground in the autumn, and stored in boxes with sufficient soil to keep them alive through the winter. In the spring they may be divided and potted if required. I am inclined to think that there might be prizes given at cottagers' shows for encouraging the growth of these effective window and border plants, for they are not cultivated nearly to the extent they ought to be.—VERITAS.

#### GERANIUMS FOR WINTER FLOWERING.

I now leave to call the attention of those of your gardening readers who may not be aware of the great usefulness of Geraniums for autumn and early winter flowering to the above fact. The conservatory here has been moderately bright and cheerful-looking up to the present time, and we hope will be so for some time to come, with a small collection of these. We have used them for two or three seasons past, and have been fortunate in having Geranium trusses more or less to cut at any time during the winter season. The dark-coloured varieties we have found the most useful in all respects, the colours being deeper at this season, the flowers standing better and being more appreciated by the ladies than the light varieties. If we were restricted to one particular sort our choice would fall on *Diana*, a dark crimson free-flowering variety, which ought to be pretty well known by this time. I have seen and had to do with most of Dr. Denny's seedlings, and like this one best of all; nor have we ever come across anyone who did not take to it directly. It should be grown in quantity wherever there are flowering plants grown. *Jessica*, another of Dr. Denny's raising, is also very fine just now, and is decidedly an improvement on *Wellington* for flowering at this season. As a rule the above strain of Geraniums are to be depended on for winter blooming. *Fred George*, a splendid sort when it does do well, is in fine order just now, only it is not to be depended on as a rule; but for summer flowering it deserves to be more cultivated. *Don Giovanni* seems likely to excel as a winter-flowering sort. There is a dash of purple in it that deepens in shade considerably at this season, making it all the more effective. *Princess of Wales*, a rosy scarlet flower, is also promising well. *H. M. Stanley*, an exceedingly floriferous variety considering the size of the trusses, and crimson in colour, is first-rate. *Henry King*, *Jean Saisley*, *Vesuvius*, are also to be depended on in the scarlet-flowered section. I had almost forgot to mention *Excellent*, which is well worth growing for the above purpose. Of pinks there are none to beat *Master Christine*; as a rule I have always found it a perpetual bloomer, and it is in all respects one of the most useful sorts in cultivation for pot culture. We find *Metalf* do very well at this season, and it deserves growing in quantity. *Blue Bell* is finer-flowered at this season than at any other, the blue being more distinct—a trait of all sorts in which a shade of blue is apparent. The newer varieties with large flower-trusses are not so useful for late work as the smaller-trussed sorts; but by having the flowers developed by the beginning to the middle of September, these can be kept in presentable order for ten weeks or more. *Polly King* is the best of the sorts with a shade of salmon in the flowers that we have tried; it is fairly floriferous, and well worth growing. For summer flowering it stands as one of the best. *President Thiers*, an attractive self-salmon flower, was fine up to the end of October, but does not seem adapted for a winter flowerer. Amongst whites we like the old *White Perfection* as well as any. *White Clipper* is, if not identical with the last, very much like it. *Florence Fraser* is a very pure free-flowering variety, the purest white we have, but does not do so well at this season as the first-named. We have a number of other

sorts, but these are the ones which have succeeded best. All others we have tried do well up to the end of October; but the buds never open after that time, consequently they are worthless for winter.

With regard to the best means of preparing the plants to flower now, were we to commence with a set of young plants we should prefer autumn-struck cuttings, kept growing gently during the winter in 8-inch pots, transferred in spring into others not exceeding 6 inches in diameter, using a sandy loam and potting very firmly. As soon as possible the plants should be placed out of doors; and when under glass, so long as they are kept moving, the hardier they are kept the better. We had ours half-plunged in a south border this summer. Beyond keeping supplied with water, the flower-trusses being picked off, and any rank-growing shoots stopped, with a little stimulant occasionally, nothing more is necessary. They should be kept out as late as possible, so long as the flowers are not destroyed by rain or frost; the longer they can be kept out the better. When they are staged in the conservatory the one great point is to keep them free from the effects of damp. We are quite as careful with them in this respect as we are with late-keeping Grapes. If the weather is dull, cold, or rainy a gentle heat should be kept up in the pipes or flues. Just now we have a small fire burning constantly. So long as other plants are not unduly excited it does such things as Cyclamens and Chinese Primroses good, whilst a few Fuchsias may be kept blooming well into winter. Indeed, when a supply of flowers has to be kept continually in these structures it is impossible to do so satisfactorily at this season without the aid of artificial heat pretty constantly being called in. It does not do to keep the plants too dry—they do not require so much water in comparison as they do when growing—but when a certain stage of dryness at root is passed and no water given the plants suffer and the flowers wither. Summer-flowering plants if well treated do quite well for winter flowering. Last year we had them in flower in the conservatory up to the end of August, when they were required there no longer, and had the same plants full of bloom at the beginning of November. Plants may be also transferred to mixed borders during the summer, and lifted in autumn when there is a good set of flower buds, potting into the smallest-sized pot possible. As a rule, however, we like one-year-old plants in small pots.—R. P. B. (in *The Gardener*).

#### PEAR BESI VAET.

I THINK it desirable to call especial attention to a Pear that is a stranger to many fruit-growers, and also because some of those who are acquainted with it have an erroneous impression that it will not ripen in this country. Ample proof of how little it is known or valued is lying beside me as I write, in the form of fifteen fruit catalogues received from as many different nurserymen, and it is found in only two of them.

A flourishing young tree of it, a pyramid on the Quince, had some fine fruit this year which was gathered and stored in the fruit room October 12th. Knowing that its fruit was thought worthless, or at any rate only suitable for stewing, by some of those who had given it a trial, I was induced to put one or two upon a shelf near the office fire, and upon tasting one on November 18th I found it to be perfectly delicious—sweet, juicy, and rich, with a slight yet most agreeable acidity, somewhat resembling the Chaumontel, but decidedly superior even to Jersey-grown fruit of that variety; and I have no hesitation in strongly recommending it as a dessert fruit of the highest excellence.

I need hardly add that as soon as I became aware of its great value the whole of the fruit was taken into the same genial temperature in which the first fruit was ripened, and which is about equal to that of an ordinary dwelling-room.—EDWARD LUCKHURST.

#### ROSE CLOTH OF GOLD.

It may interest those of your readers who are Rose-growers to know that there is a Cloth of Gold Rose at The Firs, Budeleigh Salterton, the seaside villa of Dr. Orompton of Manchester, covering a south wall 65 feet in length and 12 feet high. The girth of the wood where it is grafted is 7 inches. Last spring more than four hundred flowers were counted on it at one time. The shoots run along a cob wall thatched so as to prevent drip. The situation is sheltered, at the bottom of a sloping garden. The soil is a black loam, the subsoil

gravely boulders. The plant has been manured with bullock's blood. It was planted about twenty-seven years ago.—WILLIAM PAUL, *Paul's Nurseries, Waltham Cross*.

#### POTATOES AT THE BIRMINGHAM CATTLE SHOW.

LAST year there were 153 dishes staged, and that was considered a very satisfactory show. This year there were 320 dishes, which constituted a much more satisfactory show, for not only is it numerically greater than previously, but the sorts exhibited are better, and, as we shall show further on, they yield information of greater value to planters.

Class 16 is a repetition with variations of a last year's prize. Mr. George Wise, a member of the Council, who has always shown a most lively interest in the welfare of the Society, and in a variety of ways has done the utmost in his power to encourage a sensible cultivation of Potatoes, offered a silver cup value £5 5s. for twelve tubers of each of the following eight varieties—viz., Ashleaf, Breese's Peerless, Dalmahoy, Fluke, Red Regent, Hundredfold Fluke, Paterson's Victoria, and Scotch Blue. He stipulated that unless there were five competitors the cup should not be awarded except on the special recommendation of the Judges. There were only four entries, and one of these was not staged, consequently only three competed. These are all fairly good, and one—that of Messrs. G. & J. Perry, Acton Pigott, Condover, Salop—was so good (with perhaps, the exception of Scotch Blue, which the exhibitors call Lyall's Scotch Blue—certainly not in any way resembling Scotch Blue as shown by the donor of the prize or like any other specimen of Scotch Blue in the Exhibition), that the Judges recommended the cup should be awarded to those gentlemen. We have not heard whether Mr. Wise has given his consent, and of course, under the circumstances, it cannot be awarded without.

In Class 17 a silver cup value £5 5s. was offered by Messrs. Sutton & Sons, the Queen's seedsmen, Royal Berkshire Seed Establishment, Reading, for the best six varieties, of which two must be the New Hundredfold Fluke and the Red-skinned Flourball—two excellent varieties introduced by that enterprising firm, and which from the prominence they justly take in this show, if from no other reason, they may be justly proud, for they are shown by many exhibitors not only in this class but in others, and by nearly all satisfactorily. The Judges report that the exhibits in this class were exceptionally good. There were six exhibitors. The winner of the prize (a handsome cup) is Mr. P. McKinlay, Woodbine House, Beckingham, Kent, who, in addition to the stipulated kinds, showed Barly Dimmick, Non-such, Snowflake, and Salmon Kidney—a very satisfactory and well-grown collection. In Class 18 Messrs. James Carter & Co., the Queen's seedsmen, 287 & 288, High Holborn, London, offered a silver cup value £5 5s. for the best collection of eight varieties, four to be English and four American, one of the latter to be the new American variety Breadfruit. The cup was awarded to Mr. Peter McKinlay, who staged the following:—Yorkshire Hero, Hundredfold Fluke, Main Crop, Excelsior Kidney (large, fine, and handsome), Late Rose, Vermont Beauty, Snowflake, and Carter's Breadfruit. In the same class Mr. James Betteridge was so close to the winner of the cup that the Judges, having no second prize to award, gave the unusual distinction of "very highly commended."

Class 19 commences the Society's prizes. It is for twelve tubers of Ashleaf Kidneys, or any variety of that type of Potatoes. To outsiders it may seem strange to so state a class, but those who are familiar with Potato names know that there are many so-called varieties known by all sorts of names which are nothing but Ashleaf Kidneys. There were eight exhibitors in this class, the following being the sorts exhibited:—Lee's Hammersmith Kidney, Myatt's Prolific (two dishes), Harry (early), Ashleaf, Gloucestershire Kidney, Captain White's Early, and Rivers' Royal Ashleaf. His Grace the Duke of Portland, Clipstone Park, Mansfield, Notts, wins the first prize; Mr. Thomas P. Taylor, Lymm, Warrington, the second; and Mr. James Betteridge the third.

Class 20 includes all Potatoes of the Lapstone Kidney type. Here again the named sorts are many, but all resolvable to the recognised type. Sir F. Smythe, Bart., Acton Burnell, near Shrewsbury, was first with a fine sample of Lapstone pure and simple; Mr. William Finlay, The Gardens, Wroxton Abbey, Banbury, second with a duplicate exhibit; and Mr. James Betteridge third. The other varieties exhibited in this class were Flukes and King of Flukes.

In the next class, No. 21, Rector of Woodstock, a new variety of great excellence but of recent introduction, only one exhibit was staged by Mr. Peter McKinlay, to whom the first prize was awarded.

Class 22, for Regents or Dalmahoy. Here the prizemen were T. L. M. Cartwright, Esq., Melville House, Lady Bank, Fife, first for White Regents; and the Duke of Portland second for Dunbar Regents, and third for Red Regents.

Class 23, for Paterson's Victoria. Here Mr. Thomas P. Taylor, Lymm, Warrington, was first and second; and Mr. Samuel O. Pilgrim, The Outwoods, Hinckley, third.

Class 24, for Vermont Beauty or Brownell's Beauty. The first prize was won by Mr. McKinlay, and the second by Mr. Betteridge.

Class 25, Snowflake, or any other white-skinned American variety. Mr. McKinlay was first, and Messrs. Cocks Brothers second; Mr. James Betteridge's collection was highly commended. The varieties shown in this class were Snowflake, Bresee's Peerless, Bresee's Prolific, and Early Goodrich, the two first taking the honours.

Class 26, other white-skinned varieties, drew together Waterloo Kidney, Finland's Early, King of Potatoes, Webb's Surprise, Sutton's Berkshire Kidney, Edgote Kidney, and Red Bogs. The Duke of Portland won both prizes; the first with Webb's Surprise and the second with King of Potatoes.

Class 27, for other coloured-skinned varieties, Sir Frederick Smythe, Bart., Acton Burnell, near Shrewsbury, was first, and the Duke of Portland second, with Red Flukes. The other kinds shown in this class were Red-skinned Flourball, Extra Early Vermont, Salmon Kidney, Late Rose, and Bexton Hero.

Class 28, for three distinct varieties. The Duke of Portland was first with American Rose, Wood's Scarlet Prolific, and Bresee's Prolific; Mr. James Betteridge second with Red Fluke, Bresee's Prolific, and Bell & Thorpe's Model; and Mr. T. P. Taylor third with Flukes, Regents, and Red Bogs (query, Dalmauys by another name?).

In Class 29, for six distinct varieties, the first and second prizes were won by the Duke of Portland with Bresee's Prolific, Waterloo, Red Regents, Snowflake, King of Potatoes, and Red Flukes in one collection, and with Red-skinned Flourball, Climax, Waterloo, Main Crop, Hundredfold Fluke, and Bresee's Prolific in the other. Messrs. Cocks Brothers won third prize with Peerless, Snowflake, Brownell's Beauty, Bresee's Prolific, Climax, and an unnamed dish, probably American Early Rose.

Class 30, twelve distinct varieties. The Judges report that it was an extra good class. The prizes were awarded as under:—First and extra prize (silver cup value £5 5s. given by George Wise, Esq.), won by Messrs. G. & J. Perry for a very grand lot, including Red Regents, Carter's Ashleaf Fluke, Bell and Thorpe's Model, Harrison's Red Fluke, Wood's Scarlet Prolific, Snowflake, Sutton's Red-skinned Flourball, Bresee's Prolific, Sutton's American Pink Eye Busty Coats, Wheeler's Milky White, Perry's New Seedling, and Brownell's Beauty. Mr. McKinlay won the second prize with a high-class collection of medium-sized tubers, the sorts being Scotch Blue, Model, Johnson's Seedling, Early Gem, Late Rose, Snowflake, Early Dimmik, Salmon Kidney, Vermont Beauty, American Breadfruit, King of Potatoes, and Red Emperor. The third prize was won by the Duke of Portland.—(*Midland Counties Herald*.)

### GROS COLMAN GRAPE.

MR. DOUGLAS has alluded to the flavour of this Grape as being esteemed by many. I shall be glad to know if this is really the case, for I am compelled to say that I have never been able to pronounce it otherwise than of unpleasant flavour, and I have never heard anyone say that it is in any degree good. I have had the opportunity of testing it on exhibition tables, and have also tasted it off the Vine in several vineries in which I have seen it growing, but never yet have I considered it, except for its noble appearance, worthy of being placed on the dessert table. It is possible, however, that in certain soils and on some stocks that the flavour may be good, and if so it is very important that the conditions be made known, for in appearance it is the finest of all black Grapes. The Vine has also a vigorous constitution, and is a free bearer and good keeper.

Mr. Rivers has described it as possessing a "peculiar flavour," and as ripening its fruit in a cool vinery. I agree that its flavour is "peculiar," but I think it is a mistake to recommend any late Grape for a cool vinery. I have grown it in a cool vinery, but the fruit was positively nasty, and I have never found it even fairly good except when grown under Muscat treatment.

Dr. Hogg in the new edition of the "Fruit Manual," describes it as a magnificent Grape, the fruit being as large as some Plums, of a dark purple colour, but states that the flavour cannot be called either "rich or agreeable," and adds that it requires a "considerable amount of heat to ripen it." That is precisely my experience, as it is also that of many growers with whom I have discussed the merits of the variety.

As a considerable amount of experience has now been had with this splendid-looking Grape (for I find that it is fruiting in many vineries), it would be of great value if that experience

could be placed on record, and especially if the conditions could be stated by which it was esteemed by its flavour as a desirable addition to our present late Grapes. If it can really be produced of good quality it should find its way into all Grape-growing establishments.—*Ex-Exhibitor.*

### THE ROSE ELECTION.

SINCE the publication of the perfume poll I have received the following post card addressed to me—"Florist," an addition to my name to which I have not the slightest claim.

"I share your surprise about La France. Has not François Lacharme, most fragrant of Roses, been accidentally omitted from the list? It is far more deliciously scented than most of those named.—A ROSE DEVOTEE."

In reply to this, I may state that François Lacharme received only two votes. I share "A ROSE DEVOTEE's" surprise at the low position of this deliciously scented Rose; of the two votes one from the Blandford Nursery placing it A1, the other, my own, placing it in the second category. But as our good friend Mr. Curtis says, the matter is in its infancy; and if in a year a future returning officer for Roses should try a Perfume Election, I fancy the results will be somewhat different.—JOSEPH HINTON, Warminster.

### THE ROOT-PRODUCING POWER OF SAWDUST.

IN the cultivation of nearly all tender plants in common flower-pots, gardeners have frequently to deal with subjects that have got into bad health and decline, solely because the soil in which they have been potted has become what is generally termed "sour." It would be about as reasonable to expect a human being to thrive with his blood surcharged with bile as to expect a plant to thrive in a potful of soured soil; and some curative measures are always necessary if the plant is to live and thrive. The derangement is often caused by insufficient drainage, overpotting, and overwatering; and in the case of Pine Apple plants often from an unobserved continuous dripping of moisture into the pot.

The practice of restoring plants that are so deranged is to shake all the soil from the roots, wash them clean, prune away all decaying portions, and repot into a small pot in rather sandy and fresh soil, and when they attain good health shift them on in the usual way. This season we have experimented on some plants—a good many of which did not absolutely, and some which very much did, require restorative measures. The plants were shaken out and potted—not into very small pots for the sizes of plants—in pure fresh sawdust, and the rapidity with which in all cases the roots multiplied and gained strength has been such as we never witnessed in a long experience. Pine Apple plants produced such a mass of twiggly white rootlets as we never saw attached to a Pine plant before. The same may be said of Dracenas, Anthurium Scherzerianum, and other plants; and we shall certainly continue to use sawdust as a root-restorative for any plant that gets into bad condition at the root. They produce as many new roots in a few weeks in it as they do in soil in as many months; and when the roots are produced it is only necessary to shake them out of the sawdust cleanly, and pot into the soil which suits them. We should like our readers and correspondents to try this means with plants in bad condition at the roots, and report their experience. The sawdust we use is from a mill where all sorts of home-grown timber are sawn. We shook out a small Smooth Cayenne Pine a few days ago that had been allowed to remain for two months in the sawdust, and such was the network of roots that it was not possible to rid them of the sawdust without breaking up the ball. It had been allowed to remain too long in the sawdust for the object for which it is recommended.

On the Continent some nurserymen propagate largely in sawdust, and strike extra-sized cuttings far quicker than by any other means.—(*The Gardener*.)

TREES IN TOWNS.—The Corporation of Birmingham have made a commencement in tree-planting in their busy streets. The spot selected for the initiatory step is Stephenson Place in front of New Street Railway Station. Councillors Parry and Barker, the Town Clerk, the Borough Surveyor, Mr. E. W. Badger, and Mr. B. H. Vertegans who supplied the trees, with a few casual passers-by, were the only persons present. Two fine Occidental Planes were planted, and some hundreds of

similar trees will as speedily as possible be placed in various parts of the town. Long may they live and flourish.

### AURICULA CULTURE AT SHEFFIELD.

THE richest and healthiest collection of Auriculas that I know of among Sheffield growers is that of Mr. Simonite. They are grown in a low span-roof house. The only protection against the sooty air is that the ventilation is at the side and not overhead; and such a marvellous amount of dirt falls on the roof glass as to render much shading from the sun quite unnecessary. It is such smoked glass that the sun looks only like a great moon through it. My friend cleans his Auriculas from insects as I do with a small brush, and this is the only cleaning the foliage gets unless we have a plant much infested, and then it is dipped overhead in soft-soap water.

The plants I speak of at Sheffield are in grand health and wonderfully clean, but of course not so bright in the white meal and clear in the green as those are which have the benefit of sweet country air.—F. D. HORNER, *Kirkby Malzeard, Ripon.*

### NOTES AND GLEANINGS.

AN extraordinary abnormal specimen of the common POLYPODY (*Polypodium vulgare*), has been submitted to us by the Hon. and Rev. J. T. Boscawen. The fronds were gathered from a plant growing in a garden at Launceston. One of them had the pinna partly of the normal shape, the remainder being curiously crested and divided, but the other frond was totally dissimilar, and was in fact perfectly distinct from any example we have seen of this genus. So finely was it divided, so feathery, and apparently so perfect, that it resembled the *Hymenophyllum* rather than the *Polypodium*. No Fern, either native or tropical, could be more charmingly elegant than this remarkable example, and if the form should prove constant it cannot fail to be a valuable addition to our hardy Ferns.

Mrs. EVANS of The Ferns, Eynesbury, writes to say that she regrets not seeing the CHESHUNT HYBRID ROSE named among the fragrant varieties, as she thinks that for delicacy of perfume it stands unrivalled, and also adds for beauty of colour and continuance of bloom.

Messrs. SUTTON & Co's STAND at the Birmingham Club Cattle Show was very superior. The collections of seeds and roots were some of the finest ever exhibited. Occupying a conspicuous position in the Show was a magnificent display of forty handsome silver cups upwards of two hundred guineas in value. These, with medals and other valuable prizes, amounting in all to five hundred guineas, will be presented by Messrs. Sutton & Sons to various agricultural and horticultural societies during next year for the best specimens produced from their seeds.

Messrs. CARTER & Co.'s STAND at the Agricultural Hall is as good as it was at the Birmingham Show.

THE AURICULA (says "Nature") is said to be the only Alpine plant which has come into general cultivation in the gardens of the rest of Europe. In a pamphlet entitled "Die Geschichte der Aurikel," Professor Kerner traces the history of the discovery and cultivation of this plant from the time of L'Escluse (*Clusius*), who first transplanted this species and the hybrid *P. pubescens*, *Jacq.*, in 1582, from the Tyrolean Alps to Belgium. The latter species, and not the true *P. Auricula*, *L.*, which quickly disappeared from cultivation, is believed by Professor Kerner to be the real ancestor of the cultivated Auriculas of our gardens. The two were known at the time of *Clusius* under the names of "*Auricula-ursi* I." and "*Auricula-ursi* II.," from the supposed resemblance in the shape of the leaves to that of the ear of a bear. The hybrid *P. pubescens*, which had been lost from the German and Austrian Alps for nearly three centuries, was rediscovered by Professor Kerner in 1867 in a single locality in the Tyrol.

According to the "Journal of the Chemical Society," a German chemist, Herr Haberlandt, has published elaborate tables, showing the minimum and maximum degrees of temperature at which various seeds will germinate. Wheat, Barley, Bye, Oats, Buckwheat, Sugar Beets, Linseed, Poppy, Clove, Lucerne, Peas, Rape, Mustard, and others have their minimum below 4.75° cent. (40.5° Fah.) The minimum for Saintfoin, Pimpernel, Carrot, Cumin, Sunflower, Cat's-tail Grass, Sorghum saccharum, Sorghum vulgare, and Maize, is between 4.75° and

10.5° cent. (40° and 51° Fah.) The maximum limit for Oorlander and Marjoram is between 25° and 31.25° cent. (77° and 88.2° Fah.); for Wheat, Bye, Barley, English Ray Grass, Vetches, Horse Beans, Peas, Chick Peas, Mustard, Red Cabbage, late Kohl Rabi, Turnips, Radishes, Madder, Fennel, Carrots, Parsley, Linseed, Poppy, Tobacco, and Aniseed, between 31.25° and 37.5° cent. (88.2° and 99.5° Fah.); for Beans, Clover, Lucerne, Early Kohl Rabi, Buckwheat, Chicory, Sunflowers, Spurge, and some sorts of Cabbages, between 37.5° and 43.75° cent. (99.5° and 108.7° Fah.); and finally, for Maize, Sorghum vulgare, Turnip Radishes, Hemp, Teasel, Gourds, and Sweet Melons, between 41.2° and 50° cent. (106° and 122° Fah.) Other tables are appended showing the per-centage of seeds germinating at different temperatures, the number of hours elapsing before the rootlets reached a length of two millimetres (6-100 inch), and the average growth of the rootlets in two days of different temperatures. In all cases there is increased root-growth from 18.75° cent. (64° to 77° Fah.), and in nearly all a decrease from 31.25° to 37.5° cent. (88° and 99° Fah.).

### PORTRAITS OF PLANTS, FLOWERS, AND FRUIT.

*PROTHOPHALLUS BIVIRID.* *Nat. ord.*, Aroides. *Linn.*, Monocotyledon. *Polypandria*.—Native of Cochin-China. Flower dark green and reddish purple.—(*Bot. Mag.*, t. 6195.)

*FERULA (EURYANGUM) SUMBUL.* *Nat. ord.*, Umbelliferae. *Linn.*, Pentandria Digynia.—"The plant is a native of Turkestan, where it inhabits mountains east of Samarkand at an elevation of 3000 to 4000 feet. It was there discovered by the celebrated traveller Fedachenko in 1869, who sent roots to Moscow in 1871. According to Flückiger and Hanbury's admirable work the Sumbul plant here described—which is remarkable for the fetid, musky, and milky juice of its root—was introduced into Russia in 1835 as a substitute for musk and a remedy for cholera; thence it reached Germany in 1840 and England in 1850, where it was admitted into the pharmacopoeia in 1867. In commerce the root is imported in transverse slices 1 to 5 inches in diameter, with a dry papery bark, resinous inner surface, and spongy farinaceous central portion, which has a musky odour and bitter aromatic taste."—(*Ibid.*, t. 6196.)

*CROCUS VELUCHENSIS.* *Nat. ord.*, Iridaceae. *Linn.*, Triandria Monogynia.—"It was discovered by Signor Vriani whilst collecting for the late Dean Herbert on Mount Veluchi (Tymphrestus), near the northern border of Greece (not the Morea, as inadvertently stated by Herbert in his final monograph of the genus in the Journal of the Horticultural Society), and has since been found on the Parnassus range, and in the mountains of Thessaly, Thrace, and Transylvania. The abrupt white tip to the otherwise purple perianth-segments shown in the plant drawn in the "Botanical Register" is not a specific character. We have lately received from Col. Trevor Clarke a flower of *C. vernus* with perfectly similar coloration. *C. veluchensis* is still a very rare plant in cultivation."—(*Ibid.*, t. 6197.)

*CARICA CANDAMARCENSIS.* *Nat. ord.*, Passiflorae. *Linn.*, Dicoelia Decandria.—"The graceful little tree was raised from seeds sent from the Ecuadorian Andes by the late Professor Jameson of Quito to the late Mr. Hanbury, with whom it flowered in an open border at Clapham in 1874. A specimen received from him again both flowered and fruited abundantly at Kew during the past summer and autumn, in the open air, where it was stood out after being brought into bud in a greenhouse. According to Mr. Hanbury this is the species mentioned by Mr. Spruce in his and M. de Mello's very learned and interesting paper on the Papayaceae, published in the Journal of the Linnean Society quoted above, as the Chambi-buru, or common Carica, of the Ecuadorian Andes, where it is cultivated up to an elevation of 9000 feet for the sake of its edible fruit. Mr. Spruce adds that when he visited the mountain of Tunguragua in February, 1858, the ground was strewn with its ripe and rotting fruits, which were smaller and sweeter than that of the common Papaw, and were the favourite food of the bears that infest the forests of that mountain."—(*Ibid.*, t. 6198.)

*DENDROBIUM AMCENUM.* *Nat. ord.*, Orchidaceae. *Linn.*, Gynandria Monandria.—Flowers white tipped with purple. Native of Nepal and Sikkim. "Flowered by Mr. Bull, who received it from the Himalaya (probably Sikkim), where it was found at an elevation of 5000 feet. It flowered in June, 1874, in his nursery."—(*Ibid.*, t. 6199.)

*PLUM—Prince of Wales.*—"It appears to have been raised

from the Orleans some forty-five years ago by Mr. Chapman, a market gardener of Syon near Brentford, and on account of its bearing qualities it has in the interval become very widely distributed amongst the market-gardening community. The fruit is rather above the medium size and of roundish form inclining to oval, and having a distinct suture. The skin is a bright reddish purple or purplish pink dotted with yellow dots and covered thickly with an azure bloom, which produces a tint very difficult to reproduce in artificial colours, and of which our figure perhaps shows too little of the bloom. The flesh is rather coarse-grained, separating freely from the stone, yellowish in colour, with a sweet juice and brisk flavour. The fruit ripens at the end of August or the early part of September. The Prince of Wales is one of the best culinary Plums grown, and is besides regarded by Dr. Hogg as a second-rate dessert variety. Thompson says it may be used like the Orleans both for dessert and kitchen purposes. The tree is of vigorous growth; the young shoots long and covered with a smooth bark, in which respect it differs from the Orleans; and the leaves are oval with a crenated margin and smooth upper surface.

"The tree is very hardy in character and a most profuse bearer even while young, which is perhaps partly owing to the large foliage acting as a protection to the blossoms. The fruit usually hangs thickly all up the branches, which at an early age are well furnished with fruit-bearing spurs. Of late years the trees in the market gardens about London have suffered considerably from the dying-off of large branches, but the cause of this malady has not been ascertained. It may possibly be due to exhaustion owing to the excessive crops it produces."—(*Florist and Pomologist*, 3 s. viii., 253.)

#### PEACH FORCING.—No. 5.

**FERTILISING THE BLOSSOM.**—Shortly after the flowers are fully expanded the anthers will be carrying ripe yellow pollen, and the stigmas will be viscid. It is necessary that the pollen come in contact with the stigma of each flower, and its effect be complete upon the ovary. This primary cause of the fruit arriving at maturity is of paramount importance, for unless the seed be formed, and not only formed but perfected, it will not in the case of a Peach or Nectarine ripen; and though we may not ascertain how many pollen grains are needful for impregnating, we do know that by some agency or other the pollen must be made to act upon the stigma. Naturally insects, those with nectar-sipping pollen-gathering proclivities, the disturbance of the atmosphere by the wind, even gentle rains or dew, may and naturally do cause the distribution of the pollen, some of which perforce must be disposed upon the stigmas, and fecundation thereby be effected.

Natural agents, however, but little avail the Peach-forcer. Insects are drowsy in winter, and a hive of bees in a Peach house, valuable as the bees may be in February and onward, are little good in December or January, whilst light syringing converts the pollen into paste and destroys the viscidness of the stigmas. Lightly and sharply tapping the branches with the hand (for a stick bruises, whilst the hand does not), the trellis or stems of the trees will cause the pollen to be cast as so much golden dust, and this practised every day after the pollen is yellow until the petals drop in the middle of the forenoon, or after air has been admitted, will in most instances be effective. Instances, however, of non-setting occur after recourse has been had to the distribution of the pollen by the shaking process, which may arise from the flower, though perfect in every other manner, being defective in the anthers—sterile of pollen. It is difficult to account for a deficiency of the pollen substance, but I have noticed the deficiency to prevail most in those kinds having large flowers, as Early York, Early Grosse Mignonne, Grosse Mignonne, Noblesse, Early Alfred, Early Rivers, &c., whilst those with small flowers, as Royal George, Bellegarde, Violet Hâtive, Early Louise, Elruge, and Violet Hâtive Nectarine, are very productive of impregnating matter. It is well to note carefully the trees at the time of blossoming, and any defective in quality of pollen may be fertilised with the superabundancy collected from other trees.

The best aids to impregnation are a clear sky, a dry atmosphere, and a light breeze as will be generated by free air-giving consequent upon the sun's heat expanding the mercury, and this with lightly shaking the trees already mentioned is often sufficient (care being taken to prevent, by a little air left on at night, the atmosphere from becoming close and stagnant)

to secure a good set. The chances of having bright weather at the time of the blossoming are about evenly balanced, and should the weather be dull and wet or foggy, the necessity for artificial impregnation may arise, and in case of a deficiency of pollen is absolutely necessary. So convinced am I of its utility, that I always resort to the disposition of the pollen by a camel's-hair brush. It is best done with a rather loose and spreading one than one with the hair closely set, and bringing the brush crosswise the anthers the act of disturbing them will cause the pollen to be dispersed, some of which will be caught by the brush soon becoming coated beyond its power of retention with the golden dust, and as we draw the brush across the anthers the stigmas must hold some of the pollen.

The blossoms do not all attain full expansion at once, and the fitness for impregnation varies in different individuals; therefore, the trees should be gone over frequently, and only those having ripe pollen should have the brush drawn across them. Any trees with deficient pollen may be gone over with the brush after using it upon those with abundance of pollen, and whilst those are being done a sheet of white paper held in the left hand whilst the brush is employed with the right, and beneath where operating enough pollen will fall from a tree well furnished therewith sufficient to impregnate the trees deficient thereof. To go over the trees every other day whilst in blossom is not a very serious affair, and may make all the difference in the crop. Care should be exercised in the application of the brush, for if used roughly and heavily the style of the pistil may be injured or the viscidness of the stigma removed; but done with a light hand and at the right time it is desirable, it is certain to be beneficial, and is a process which I should not feel easy in omitting when the trees are in blossom at the dullest period of the year. In the fertilisation of the blossom notice will be made of some with two pistils, notably Noblesse, Grosse Mignonne, Early York, and the Peaches and Nectarines with large flowers, and these give twin fruit, not one in twenty of which do other than fall after setting, rarely passing stoning. They should be removed, and this may as well be done at blossoming as any other time.

The adventitious or twice-flowering or more of some fruits has been noted, but I do not remember the Peach and Nectarine being included. About four years ago an Early York had several blossoms late in September, and set the fruit well, swelling to about the size of Peas, and again this year a Nectarine we had for Elruge, but it is the Roman, of which Parkinson wrote in 1629, "It has a large or great purplish blossom like unto a Peach," and Dr. Hogg says, "Is one of the oldest if not the oldest Nectarine in cultivation," which had in the middle of November a fruit the size of a pea. This adventitious flowering I have found when prevailing to only a small extent a good augury of future prospects.

I will now allude to the advancement by stages of the fruit of the Peach and Nectarine. The first stage is that immediately following setting. Many fruit after setting swell to the size of peas and become stationary, swelling very little for near a fortnight; some fruits swell rapidly, and with others the footstalk shrivels and the fruit falls. If cut through these fruits are found to be imperfect. I was under the impression that this dropping of the young fruit was due to over-setting—too many fruit for the trees to support; but acting upon it by reducing the fruit after setting convinced me of my error, for some fell just the same, whilst others swelled. Inspection of the flowers prior to impregnation led to its being attributed to the defectiveness of the female organ on the one hand and of the inertness of the pollen on the other, but in most instances the former. I allude to this because it has been advised in cases of a preponderance of flowers to thin them, resolving itself into a question of which may and which flowers may not be removed. It is easy in the case of Apple, Pear, Plum, Cherry, to tell the flowers by their want of ovary and smallness as non-setters, and the large blossoms, with large ovaries and stouter footstalks, as the setters; but in the case of the Peach and Nectarine the large flower showing the ovary very clearly at the base set only to drop when the size of a pea; whilst the medium-sized flower upon weaker wood, with the ovary prominent, sets and retains its hold with a tenacity exceeding that of the larger flowers on strong wood, whilst small flowers with no apparent nectary almost invariably drop with the petals. It is clear that the flowers to be thinned are the weakest, but in what way their removal can contribute to the setting of those retained is, to say the least, questionable and uncertain. The only good I think that a removal of superfluity of blossom can effect is the diversion of matter from



expenditure on useless bloom to improving and invigorating the growing parts, and acting in that way, if it does, must contribute immensely to the after-support of the fruit and vitality of the tree itself.

The next stage to which I will allude is the commencing of the stoning process, and the advantage is here in favour of the moderately vigorous tree and the weak, for the vigorous tree casts its fruit to an alarming extent. If the fruit be cut we find a kernel of watery matter, or the dried empty skin of the seed, or hollow cavity, the footstalk of the fruit dried up, and the fruit itself shrivelling. There is a cause for this no doubt, yet what that may be I could never ascertain. It is clearly not an effect of treatment nor of overcropping, but, contrary-wise, luxuriance of growth. Can it be that the growth being gross the ascending sap is imperfectly elaborated in the fruit, and the descending juice or cambium is diminished in proportion from the great loss consequent on the excessive exhalation from the leaves and fruit surfaces of gross trees as compared with the moderately vigorous? This I think is the case, for, first, the fruit invariably shrinks; and second, if a ligature be placed on the branch or shoot bearing fruit below the fruit so tight as to compress the sap vessels, the fruit seldom drops. I contend, therefore, that as the trees at this stage grow but slowly, that the process is being undergone in respect of the fruit similar to that occurring later on in respect of the wood—viz., its ripening. The ascending sap being excessive, growth and unfruitfulness ensue; but the ascending sap being moderate, the descending is greater correspondingly from the lesser exhalation taking place by the leaves and fruit, and the parts are more fruitful. The casting of the fruit at this stage is analogous to that described in the "Science and Practice of Gardening," page 386, summed up in the following terms:—"A similar defective fertility occurs if the female parent in animals is over-stimulated and fat."

The third stage is the stoning one, and this is certainly, in respect of the fruit, similar to the ripening of the wood. The seed is with the completion of the stone perfect, as with the ripening of the wood the buds are rendered fertile or otherwise abortive. The two last stages are dependant upon the condition of the parent. It is not a result of imperfect impregnation, but of grossness of growth, or its opposite, weakness, and resultant from overcropping. If the growth of the trees be gross, and much wood is made during the stoning, few fruit will pass it safely; and in the case of a weak tree, from the ill supply of nutriment, the fruit, if at all abundant, does not stone, a number of fruit dropping, but not to such an extent as in the gross subject; whilst the moderately vigorous tree, with stout short-jointed wood, not overcropped, and its growth stationary or nearly so during the stoning period, passes the stage with the loss of few, if any, fruit, and what do fall are the small and imperfect.

The importance, then, of the ripening of the wood or the deposition of cambium is essential to the fruit passing the first stage, also the second and third, and points to our avoiding the extreme of moisture and over-stimulating food during those periods or those immediately preceding, "inasmuch as an abundant supply of these increases excessively the development of the succulent parts of the fruit, and yet the vessels from this to the seed often wither and render it abortive."—*Science and Practice of Gardening*, page 386.—G. ABBEY.

## CHAPTERS ON INSECTS FOR GARDENERS.

### No. 4.

THOUGH it is but a word of three letters, I consider the word "fly" to be one of the broadest words in the English language, since it serves in its popular acceptation to cover such a multitude of insects. Besides flies proper we have no end of flies improper rejoicing in this appellation. Many species of the Hymenopterous order are flies with most folk; so are the dragon flies, the May flies, and other Neuroptera. The Hemipterous aphids and sundry relatives rejoice in this epithet, and so do the caddis flies. More than that, the name touches the unlikely order of the beetles, for a *Haltia* is a Turnip fly; and day-flying species amongst the gaudy tribe of the Lepidoptera are butterflies, or even simply flies. In fact it might not be difficult to establish the theory that originally English folks called every insect that could fly a fly; though, on the other hand, there is no evidence that people called insects which did not fly a "creep" or a "crawl," yet it would have been quite as appropriately vague. Flies, however, to speak scientifically, constitute the important order of the Diptera or Two-winged

insects, placed by some writers on entomology at one end of the insect class, and by some writers at the other end. As we work from the lower to the higher the consideration of it comes here. To most persons the name at once suggests annoyance or loss, and visions come up of the house fly, the bluebottle, the gnat, the mosquito, the gadfly, and less-known species of a like evil repute, while the horticulturist has his special reasons for disliking the Diptera; and yet these insects render important services to mankind at large, and some services worth mentioning to the flower, kitchen, and fruit garden. Pre-eminently are the scavengers of the insect race represented amongst the flies; and their labours in decomposing and devouring substances which would otherwise be noxious or at least useless, were recognised long centuries ago by the man who in old Greece and Italy groped eagerly and painfully after the truths of natural science.

So far as numbers are concerned flies take the lead amongst insects, though in point of size many of the species occupy only a low place. Flies have not inappropriately been termed the pioneers of the insect host, for it has been observed that on barren lands which have been brought under cultivation, and where insect life was previously lacking, the first species that present themselves are these two-winged insects. I dare say a look of disgust steals over the face of many a gardener as he contemplates the "insects of the sunshine," about which the poets have gone into rhapsodies, and most of which belong to the Dipterous order, and wishes they would take their aerial excursions anywhere else but in his domains. Yet really I, for my part, would venture on the assertion that on the whole we have more reason to view the Diptera with friendliness than with disfavour, though I know there are some who would maintain the opposite. It is certain that of the multitude of flies one sees about the garden or the conservatory the majority are only intent upon imbibing the honey of flowers and have no sinister designs, and a proportion of them are directly or indirectly beneficial to us. Of course there remains yet a proportion that are injurious either in the fly state, or, more frequently, while in the larval or maggot condition. Meanwhile I would urge the reader to keep in mind these four facts, which I put as curtly as possible lest he should say emphatically in the words of a popular refrain, "Bother the flies!" First, then, various larvae of flies do service as scavengers in preparing decomposing matter for the enrichment of the ground; secondly, many flies as imagoes and larvae prey upon other insects, and also on other flies; thirdly, the fertilisation of flowers is frequently brought about by the passage of flies from one blossom to another; and fourthly, flies supply an important element of food to numerous birds which would otherwise attack vegetation. It is well known that when much damage is done to the buds in spring the birds who have been concerned in the matter have had difficulty in obtaining sufficient insects for their requirements, and so they fall upon the tender leaf buds. Of course I grant that sometimes the birds open buds for the sake of the insects they contain.

The particulars which need to be noted to enable us readily to distinguish the bulk of true flies are brief and simple. The two wings are clear and are never folded, while in place of the hind wings found in other orders we have a pair of balancers or poisers ending in a small knob. The mouth is best known by its proboscis or sucker, rendered still more effective in some species by an accompanying array of lancets, representing what amongst the biters of the insect tribes we call the mandibles and maxilla. The pupa of a fly is always inactive, nor does its shape give any clue to the insect enclosed. The familiar maggot or larva is legless and most usually simple in form, though a few species with aquatic habits are curiously decorated with appendages having to do with the breathing or swimming apparatus like that of the common gnat. The eyes are large, sometimes seeming to absorb the whole of the head. In the structure of the legs we notice that the tarsus (which represents what we call the calf in the human subject) has five joints, the feet being clawed and provided with flat hairy pads, generally two in number, occasionally wanting. These pads enable flies to perform those feats, so astonishing to the eye, in the way of walking head downwards on substances which offer no grip; and even when the structure of the fly is examined there is still some difficulty in comprehending "how it's done." Flies, however, are not the only insects thus skilled in gymnastics, though they have been spoken of as if they were singularly clever in this mode of progression.

The very small division of the flies called the Eproboscidea only require a few words, as they do not concern gardeners,



since the flies in their mature condition are parasites on the bodies of animals, and a few species are without wings. The forest fly is a familiar example of the winged type of the division, and the sheep tick, so called, of the wingless. In this group we have the most peculiar circumstance of the female insect producing but one individual, and that either an adult larva or a pupa. The bulk of the flies form the Proboscidea; again divided into the Nemocera, slim creatures mostly, with longish threadlike antennae and long legs, and the Brachyocera with rather stumpy antennae displaying a fine bristle at the base, though a few have these longer, but not jointed as in the Nemocera. Though the majority of the species in the order belong to the latter group, we notice the former group about us quite as much, from the habit they have in many instances of congregating in parties—gnats and midges for instance. But without venturing on a close calculation, I compute that the gardeners' enemies of the Dipterous race preponderate amongst the Nemocera. It is not always easy, however, to distinguish friend from foe, not only in the case of flies but with various other insects, because a vegetarian in one stage will be predacious afterwards, and vice versa; so that the benefit may be more than a set-off against the injury received. Some entomologists, again, have endeavoured to break up the Nemocera into two natural divisions of Blood-sucking Flies and Flower-lovers, not very successfully as yet.

We may take it, on Mr. Walker's plan, as dividing itself into ten families, the rather obscure family of the Mycetophilidae coming first, although its representatives are small in size but excessively active, seeming to skip almost as frequently as they fly: in popular phrase they would be called tiny gnats, though they have shorter legs. The larvae feed on fungi, also on decaying vegetable matter, or perhaps sometimes on decomposing animal substances, and they can hardly be said to affect horticulture either favourably or unfavourably. I am not aware of any authentic instances where they have done mischief to the edible fungi cultivated in our gardens. Far more important is the next family of the Cecidomyiidae, embracing the myriads of the gall gnats, many species of which must be counted amongst the gardener's foes, though the result of their operations is a disfigurement and not the death of the plant attacked, nor an arrest of its fructification. Few species of Cecidomyia trouble the orchard or the kitchen garden; still there are exceptions: thus in 1874 *C. nigra*, at first suspected to be a different insect, destroyed a good many Pears. It is the habit of the species, as we conclude, to deposit eggs on the Pear bloom, and the young larvae or grubs, eating in, bring the fruit to the ground at an early period immediately after they are knit. No one, as a rule, takes any heed of these small windfalls, especially when a certain proportion remain behind, and so the insects are suffered to increase and multiply. As Mr. Newman observes, such abortive Pears should be carefully picked up and burnt to insure the destruction of a part of the imagos, though no man can secure himself from these winged visitants if they chance to come from his neighbours' orchards. Some years ago a Cecidomyia was very active in disfiguring the leaves of the Ash in gardens and plantations, and there is a well-known species that attacks the Raspberry canes, causing swellings which are seldom attributed to the insect that really is the germ of the mischief. Everywhere, in the garden and the wild, do Cecidomyiidae occur, the malformations they develop in leaves and flowers being sometimes of very singular shape. The woody galls, however, are generally produced by Hymenoptera, though the gall gnats frequent certain of the galls of that sort, not as parasites but as visitants, living amicably with the rightful tenant, as is supposed. It is a question, though, whether intruders into a gall do not under some circumstances starve out the gall-maker. In the case of several flowers the larvae of these flies bring about abnormal growths; thus, in those of the Tansy, when it is attacked, the stamens and style have been observed to disappear, while the corolla was unnaturally shortened. On the Ground Ivy the larvae of a species of Cecidomyia feed in small case-like dwellings which are readily detached from the plant, reminding one of the tent-abodes of the caterpillars of numerous small moths of the Coleophora tribe, in shape resembling a cigar. Small as are these larvae, many of them journey from the plant to the earth, into which they enter to become pupae; and a correspondent of a scientific journal asked curiously, "What is the fate of the Cecidomyia larvae that have completed their term of larval life on the boughs of Willows and Osiers overhanging water, since, if they followed

their usual habit and descended they must tumble in and be drowned?" To which a rather extensive observer of galls has replied that the insects will seldom be found occupying such situations, the parent flies instinctively avoiding these branches. Some of the gall gnats make silken cocoons. Agriculturists have reason to consider the word Cecidomyia a name of terror, since serious damage is committed by *C. tritici*, the Wheat fly. This autumn I noticed the species swarmed in some fields in the North Kent districts, and it is most difficult to deal with.

In dismissing the Cecidomyiidae I gladly give them a favourable note at parting, and therefore state that some of them assist the Coccinellae and the Syrphi in thinning the numbers of the aphides. Apparently they "do good by stealth" if they do not "blush to find it fame." Indeed, one discovers that the aphides have far more insect enemies than was once thought; and it is a fortunate fact, otherwise through their vast fertility we should suffer from them still more severely, since all aphides seem born with good constitutions, and in weather that is most trying to humanity they can be "awfully jolly."—C.

### NORRIS GREEN,

THE SEAT OF J. P. HEYWOOD, ESQ.

MR. HEYWOOD's name is well known as a chief banker of Liverpool. Norris Green is situated at West Derby, about six miles from Liverpool. My visit was not marked with the most propitious weather, for the rain fell thick and fast from early dawn to 1 P.M.; this was in the month of August, and the day of my visit was said to be the wettest day of the season, yet I was determined on seeing Norris Green despite the rain.

At the entrance gates is a substantial lodge of red sandstone, passing which a good broad sweep of well-kept carriage drive brought me to the mansion. On each side the drive is a thriving belt of shrubs. Hollies in particular seem to thrive better in this locality than they are generally met with in the more south and easterly counties.

The mansion is a plain substantial-built residence, pleasantly situated. In a north-easterly direction the eye looks upon a richly wooded landscape stretching some miles away. From this point is obtained a bird's-eye view of Knowsley, the noble mansion of the Earl of Derby, and from the same standpoint a view is obtained of Croxteth Park, the seat of the Earl of Sefton. The western side of the mansion is shut in by tall trees and belts of shrubs, for the purpose of shelter and shutting out the public highway which runs close by.

To the left of the mansion is a good sweep of well-kept lawn, next comes a group of fine old Beeches, &c.; this is called The Rookery. Beyond this a belt of large trees extending far in a gentle sweep to the north-east; this gives a background as well as shelter. A walk extends through this wood.

Retracing our steps we now come to the winter garden and conservatory. It is a sunk or panel garden, and is 100 yards long by 36 wide. Formerly it was the flower garden proper, but owing to the family being away during the summer months the enclosure is now converted into a winter and spring garden. It is planted with choice kinds of flowering shrubs, such as Ghent Azaleas, choice kinds of Rhododendrons, Mediterranean Heaths, Fernettyas, Kalmias, Andromeda floribunda, Daphne cneorum, &c. The shrubs planted by the sides of the walks are Golden Yew, *Taxus aurea*, *Cupressus Lawsoniana* erecta viridis, and *C. fusifera*. A few beds are left for bulbs and summer-flowering plants. By a judicious arrangement of three sets of bulbs these beds are kept gay a considerable time, first set being Crocuses, second Hyacinths, third Tulips. They are all planted at one time, in new soil, early in the autumn, about 2 inches deep. By this system a succession of bloom is obtained, one set closely following the other, leaving no blanks in any part. After flowering the bulbs are taken up and afterwards used for border purposes, fresh bulbs being planted every year. These are followed by ordinary bedding plants. The vases round this garden are filled with low-growing plants, such as Sedums, &c., with Ivy growing round the pedestals.

The conservatory is at the end of the garden. Beyond is a walk 150 yards long by 10 feet wide, planted on each side with Conifers—*Picea Nordmanniana*, *P. nobilis*, and *P. insignis*; *Deodaras*, *Wellingtonias*, *Araucaria imbricata*, and *Arbor-Vitae*. These on each side are sheltered by large forest trees; but Conifers do not seem to thrive well after they attain a certain height, for strong westerly winds are powerful here, and the dense volume of smoke and fog which passes over this locality has its baneful effects on some kinds of shrubs. For such

localities the dwarfier kinds of Conifers are better suited, where they can be sheltered by large-growing trees.

The conservatory is 71 feet long by 40 wide, and is built on the ridge-and-furrow principle, and has four entrances. A walk 4 feet wide runs round the sides, the central walks being 5 feet wide; these are edged with stone and covered with a light-coloured shingly gravel. A stage is round the sides of the house 2½ feet wide for small plants. As will be understood by the arrangement of the walks, this leaves four compartments. In these compartments are planted Camellias, each plant being separated from the others by a single-brick partition wall. No doubt this is a wise provision in the event of any one plant requiring to be removed, so that it would not in any way interfere with the adjoining. Each division contains about a dozen exceedingly fine plants. They are grown as pyramids, in a soil about two-thirds of loam and one

of peat, with a little silver sand; in the spring and summer months they are watered with farmyard liquid manure diluted with rain water. They were bristling with bloom buds, which have been judiciously thinned, so that good blooms may be looked for. The following are the dimensions of a few of the plants:—*Camellia Chandelieri* is 8 feet high by 5 through; *imbricata alba*, 8 feet by 6 feet; *Cheloni*, 8 feet by 5 feet; *elegans*, 10 feet by 5 feet; *Waltoniansis*, 7 feet by 5 feet; *Aitonii*, 7 feet by 5 feet; *francfurtensis*, 6 feet by 4 feet; *Lady Hume's Blush*, 9 feet by 6 feet; *imbricata rubra*, 9 feet by 6 feet; *reticulata*, 8 feet by 4 feet—this is grown as a standard, and is rather a difficult one to grow well; *Saccol Nova*, 10 feet by 8 feet. At the corners of these divisions is a plant of *Azalea indica alba*, 6 feet by 5 feet. The roof of the conservatory is supported by eight iron columns, braced together by girders. On these are trained *Gloire de Dijon* and

Fig. 107.—NORRIS GREEN.

*Maréchal Niel* Roses, *Tasmania Van-Volxem*, *Acacias*, and other choice climbers. These were growing in unconfined profusion, thus having a more natural and pleasing appearance than when trimly trained. This house is efficiently heated by two saddle boilers.

The kitchen garden and forcing department is a walled-in enclosure. The first house we enter is a span-roofed stove 40 feet long by 20 wide, with a stage round the sides and a pit in the centre. In this pit is a hot-water tank, over which is placed the plants. Noticeable was a fine plant of *Dracena lineata* 10 feet high, a good plant of *Allamanda Schottii* finely in bloom, also some very fine plants of *Eucharis amazonica*, choice Orchids and Ferns. Next comes a half-span Cucumber and Melon house 54 feet by 17 feet. The Melons grown were *Royal Ascot*, *Green-fleshed*, and *Cox's Golden Gem*, which are highly spoken of. Next in order is a range 160 feet long by 19 feet wide, divided into four compartments, a central compartment being for plants, which contained a good collection of *Azaleas*, &c., of convenient sizes, which have when in flower to do duty in the conservatory. The other compartments are for early and late-keeping Grapes. *Lady Downe's Seedling* and *Black Alicante* are the best sorts for late keeping, but preference is given to *Lady Downe's Seedling*, which Mr. Child told me keeps in good condition until May. For early Grapes the *Black Hamburgh* is grown. The forcing of

the early house is begun at the end of October, and ripe Grapes are out in April; and as the late kinds are kept until May this gives a succession the year round. One house had been recently planted with *Muscat of Alexandria*, which had covered a rafter 22 feet long, the wood being well ripened and short-jointed.

We next enter a span-roofed house 40 feet by 20 wide, with a pit in the centre and a stage round the sides. The centre pit is filled with soil and planted with choice kinds of Tea Roses, which are trained over iron trelliswork; they are also trained up the rafters. On the side stages were some nice young plants of tree *Mignonette*, growing-on for conservatory decoration, besides many other plants for the same purpose. This house furnishes a good supply of cut blooms during the spring months. In addition to this house a choice selection of about two hundred plants are forced for decorative purposes.

The next house is a lean-to vinery 45 feet by 18 feet, which is planted with a double set of young Vines (*Hamburgs*), the permanent Vines being planted in an outside border while the temporary Vines are planted inside for earlier forcing. This is done with a view to cropping the temporary canes only until the permanent Vines are thoroughly established.

My attention was next directed to a span-roofed house 45 feet by 15 feet, with a walk down the centre and a pit on either side also planted with Vines; this is a late house, the

sorts being Lady Downe's Seedling and Alicante. This was not originally intended for a vinery, but merely for a temporary purpose. Sentence of death had been passed on these Vines, but in consequence of their continuing to bear crops of such excellence the sentence has been withdrawn during Mr. Child's pleasure, a decision I quite agree with.

Next is a lean-to range about 240 feet long by 12 wide and 12 high in four compartments, planted with Peaches and Nectarines. The fruit from the first houses had been gathered some time; in the second houses I noticed good fruit of Belle-garde Peach and Acton Scott Nectarines, the whole having produced average crops of good fruit; a late house contained some fine fruit of Pitmaston Orange Nectarines. At each end of this range is a gable or span entrance; on the front side these entrances are planted with Figs. These with the usual cold pits and frames complete the glass structures.

Large quantities of Chrysanthemums were growing on for decorative purposes. The large-flowering kinds are grown on single stems, which at the time of my visit were from 4 to 5 feet high; the Pompones are trained on low flat trellises. The larger-growing kinds when in bloom are placed between the Camellias, which help to light up the more sombre-looking foliage of the latter. It is no light task to keep this large conservatory gay through the dull months of autumn, winter, and spring. To show the extent of the forcing required for such a purpose, I may mention that five hundred Roman Hyacinths, and about the same quantity of various colours are employed, besides a thousand Tulips, eight hundred Crocuses, one hundred and fifty Narcissuses, two hundred Lilies of the Valley, one hundred and fifty *Spiraea japonica*s, supplemented by Primulas and *Justicia speciosa*, of each about a hundred plants, spring-struck; Cyclamens, Celosias, and Cocks-combs. *Begonia waltonensis* and *parviflora* are found very useful, also large quantities of flowering shrubs, such as Ghent Azaleas, Rhododendrons, Lilacs, and a host of other plants too numerous to mention.

A wide border in front of the principal range of houses is planted with ordinary spring flowers, such as Daisies, Violas, Polyanthus, Myosotis, &c. A short distance from this border is an Italian garden, which is filled with three sets of bulbs the same as previously described. At the back of the principal range are the young men's bothies, potting sheds, &c. It is worthy of remark that their comforts here are studied more than they are in many places. The apartments were clean and healthy, and consist of kitchen or mess-room, which contains a good cooking range and separate bedrooms, the foreman having a room to himself; there is also a woman attendant.

The kitchen garden contains the usual assortment of fruit trees, &c., except Peaches and Nectarines, which are grown under glass. Noticeable on a west wall was a fine crop of Morello Cherries. About twelve hundred Strawberry plants are prepared annually for forcing; Duc de Malakoff, Viscountesse Héricart de Thury, Sir J. Paxton, and President are forced in the order named. The greater part of the vegetables are grown a little distance away, the ground devoted to their culture being about four acres in extent.

Leaving the kitchen garden by a short cut we arrived at two semi-detached cottages with neat gardens and abounding with sweet-smelling flowers; these cottages are occupied by Mr. Child and the coachman. I must not omit to mention that in addition to the comfortable housing of Mr. Child and his young men the labourers are not neglected, for near at hand is a row of comfortable cottages. This is a worthy example on the part of Mr. Heywood, and would be better for both employer and employed if the example was more generally carried out; it would tend to cement master and man more closely together, and the advantages of such a plan cannot be over-estimated. It is too often the case that men have long distances to walk morning and evening, and it must be obvious that a man having three or four miles to walk cannot be so fresh for his daily labour as one who is close to his work. Mr. Child's staff consists of thirteen men—viz., nine labourers and four journeyman gardeners, the whole of which are employed in the houses on wet days.—G. R. ALLIS.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

Winter having set in severely and somewhat suddenly has very much altered the sort of work to be done; for what would have been a busy time for planting and ground work should now be devoted to such work as will forward operations when

the weather proves favourable. On the 8th (Friday) there were 4° of frost after a heavy downfall of snow; but this morning (Saturday) the thermometer registered 18° of frost, but this did not come on till the morning, and by eleven o'clock the glass stood again at the freezing point. Now it is hoped that the previous advice given about the preparation of protecting materials has not been neglected, for they will now be wanted in real earnest. The wet season we have had, which in so many districts has caused a temporary flooding of the soil, has caused many plants in the kitchen garden to be more sappy or tender than a finer autumn would have brought about, consequently that one circumstance will, if the frost last long, cause a greater destruction by it. In many gardens about here the crop of Celery is poor: in order to save as much of it as possible the most of it should be protected by litter or straw, or even branches of evergreens. Again a whole row may be taken up, leaving as much root as possible, and take the plants to a shed or cellar, and lay the roots in dry earth. If the frost should penetrate the earth so as to reach the plant I am afraid that much of it will suddenly rot when a thaw takes place. That is my reason for stating that much of it should be taken up. The heads turning in of Snow's Winter Broccoli have been cut, and as the plants remaining of this and other sorts are covered with a thick coating of snow it will be well to let them alone, as snow, if it comes before frost in sufficient quantity, is a great protector. But where Broccoli suffers considerably is when a sudden thaw comes on so as to melt the snow off the plant and then suddenly freezing again, the plants after that are liable to go off at the most tender part—just under the heads.

Watch carefully the heat in outdoor beds of Seakale and Asparagus. If the heat is at present sufficient it will be best not to do more than add an extra covering of dry material to keep the heat in as much as possible. In former times when these plants were more frequently forced outdoors it was no small trouble for gardeners to keep up the heat; thatched hurdles were often called into use to stand round the beds and keep in a lining of dry straw between these and the heated dung. Whether the plants are in a frame or a dung bed these protectors should always be prepared, for they are excellent aids and applied in a few minutes, and as easily taken away when not wanted. Whoever may be collecting fresh manure for an early Cucumber bed should, if possible, put it under an open shed, or if that is not convenient it should be protected from frost and snow outdoors, both of which hinder the process of fermentation and render the bed dangerous from rank steam when put up. Leaves from trees are useful to add to the manure.

In the fruit garden I am afraid if frost comes on too severely that some of the tender sorts of fruit trees will suffer; for I see the wood of Peach and Nectarine trees is very imperfectly ripened, and of the late sorts many of the leaves are still hanging green upon them. Now a temporary protection of evergreen boughs stuck among them would do no harm, but probably prevent much injury, and these any amateur can obtain and they are quickly applied. Fig trees on walls may be treated in a similar way. In such early winters as this the plan of thatching the trees in upon the wall is not a bad one; it saves the young wood if not the fruit; it would, however, be a long job with large old trees whose branches have been allowed to grow too much out of bounds. Young wood may be gathered up into a comparatively small space and tied together, and protection made easy. Though gardeners in large places have much of this sort of protection to resort to, it is necessary to success and applies with the same importance to the amateur though in a much smaller way.

Now the opportunity is come do not neglect to have plenty of labels made of different sizes both for kitchen-garden crops and indoor plants, also flower-garden pegs made, flower stakes made, and old wall nails cleaned, shreds out, and everything arranged for convenience at a more busy time.

The store of fruit should be looked over, and take care that the temperature does not fall too low; it ought to be kept at about 50° Fahr. The same may be said with Potatoes, which ought not to be below 40°.

In the greenhouse watch that the heat may be also kept very regular and by no means too high—say about 40°, which will keep most plants in a proper state at present. A hot dry heat when the weather is too severe to admit of ventilating the house is one of the most injurious plans of treatment, and should be guarded against in every possible way.—THOMAS RECORR.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### HARDY FRUIT GARDEN.

Winter has come upon us rather suddenly this season, and those are fortunate who have their trees planted out and a thick mulching of short manure placed over the roots. Should packages of trees arrive in severe weather, or at a time when the ground is not in a condition for them to be planted, they

must be laid-in carefully, and not be planted when the ground is frozen, or if it is saturated with wet. We look over all trees in the open borders at this time, and prune where it is required. The system of summer-pruning has a tendency to overcrowd the branches, and if this is the case the fruit is not sufficiently exposed to the influence of sun and air; nor will fruit buds be formed in the thickest parts of the trees at all. The pruning knife should be used freely in the way of thinning-out the wood; there is little danger of overdoing it.

Gooseberry pruning will also be done as soon as it is convenient. It may be as well in this also to remark on the nature of the bushes to become crowded with young wood. This must be cut quite close back to the main stems, except so much of it as may be required to extend the tree or to fill up spaces. The points of the shoots only ought to be cut off. Any suckers or young growths from the base of the main stem should be wrenched out without leaving any buds from which growths may start the next season. If the bushes were infested with the caterpillar it will be necessary to remove the soil underneath the bushes to a depth of 3 inches or more, and wheel it on to a space of ground where it may be trenched-in to a considerable depth. Some fresh rich mould from the same ground will be required to replace what has been removed. This pest may also be destroyed by placing some fresh tan under the trees where the eggs of the caterpillar have been deposited. The Gooseberry season is very much prolonged either by planting a few bushes of the latest sorts on a border on the north side of a wall, or the trees may be trained to the wall itself. One of the best sorts for this position is the Red Warrington.

Red and White Currants are pruned much in the same manner as the above. The young wood is spurred back closely to the stems, the leading growths being cut back to three parts or half their length, or even closer, just as the bushes have grown to the full size or otherwise. The leading growths should always be cut to an outside bud, which will cause the leading growth next season to grow outward instead of into the centre. Black Currants require but little pruning—only to have the branches cut out where crowded, or to get the bushes into shape. They have also a tendency to throw out from the base, but none of them ought to have more than one stem. Bushes can be obtained at such a cheap rate that it is hardly worth while for an amateur or gardener to propagate their own, unless it is desirable to perpetuate some favourite variety. The strongest young wood should be chosen for cuttings, and it should be removed from the bush with a heel. To prevent suckers from springing up all the buds must be removed with a sharp knife that are underground when the cutting is planted. They must also be cut out 4 inches above ground, leaving only about from three to five eyes at the top.

We would again urge the importance of annual, or at least biennial renewal of Strawberry beds. We noticed a man the other day digging between the rows of a Strawberry bed. He had first to set a line, and cut down the side of one, and then measure the distance between the next row, as all traces of the original plants were lost in a confusion of runners. Now we have often grown Strawberries in this way, but have never been able to obtain more than half the quantity from the rows that could be obtained from one-year-old plants, and the quality from the young plants has always been of the best.

#### FRUIT AND FORCING HOUSES.

**Vinerias.**—We are preparing some fermenting material for the earliest house. A thick coating sufficient to cause a gentle heat is placed upon the outside border after it has been watered with tepid water, and to retain the heat shutters are laid over the manure. Equal proportions of stable dung and leaves cause the best heat, and retain it longest. When the thickness is not more than a foot or 18 inches, in six weeks the heat will have gone out of the covering, when it may be renewed by removing some of the most decayed portion and shaking the rougher part up with fresh material. If it is necessary to apply water this can be done at the same time. The Vines always start most strongly when there is a bed of the same material inside the house. As soon as the heat becomes excessive the material may be turned over; indeed, this may be done every day with advantage to the Vines. It is not necessary to syringe in the house much when a bed is made up in it. It is necessary to look over the bunches about twice a week to cut out decaying berries. Mrs. Pince's Black Muscat has kept very badly; the berries decay in the centre of the bunches, and it is not easy to remove them without injuring the outside berries. Bunches of Gros Guillaume quite as large and compact as those of Mrs. Pince have not had any berries decay. Lady Downe's Seedling keeps very well, and looks quite as fresh as they did in September.

#### GREENHOUSE AND CONSERVATORY.

Early-flowering Tulips and Hyacinths that have been plunged out of doors should be removed to shelves near the glass; the crowns will have started an inch or more, and the pots will be quite full of roots. A small pot should be placed over the crowns for a few days to gradually inure them to the light. A

few pots may be placed in the forcing house or early vinery; but the heat at night ought not to be too high at the first—45° will be sufficient. If the pots can be plunged in a little bottom heat it will cause a more rapid growth.

Roses may now be started in the same temperature. They ought to be pruned six weeks at least before starting; if they are pruned just before they are apt to bleed. *Deutzia gracilis* is very easily forced, and is one of the most useful of our decorative plants. It is not necessary to go into details of culture, as all these early-forcing flowers require very similar treatment. They are all better to be started gently at first, and, then, with increasing heat, and the plants kept as near the glass as possible, they will flower freely at any time during the winter months. All are the better of a little bottom heat.

Hardwooded plants, such as Cape Heaths, Asaleas, and other New Holland plants, do not require very much attention at this season, but what they do require must be done at the proper time. They must have as much air admitted by the ventilators as possible; but during such weather as we have at present, with a keen frosty air and a thick fog through which the sun's rays cannot pierce at noonday, it has not been possible to open them all. Of course had we houses that could be spared for each class of plants the night temperature for nearly all this class would not be so high, and air would be admitted by day on occasions when it cannot be done at present owing to the house containing more tender-flowering plants. Cape Heaths are very much subject to the attacks of mildew, and when it first seizes hold of the plant it cannot be discerned without minute search, so that those who are not aware of its insidious progress are often taken by surprise. Dusting with flowers of sulphur is a sure remedy, and when applying it the plant should be laid down on its side to prevent the sulphur from falling into the pot, as it is very injurious to the roots.

Asaleas have been trained into their proper shape, and some of them have been placed in heat for early flowering. The plants that still remain in the greenhouse require looking over occasionally to remove decaying leaves. They are free from thrips and red spider. Both these pests hang about the leaves in winter, and where they are now on the plants the house should be fumigated with tobacco smoke, as no better period could be chosen than this to destroy them. The smoke will not kill the eggs; when these are hatched another application will be necessary.

One seldom sees the *Cilanthus punicus* in a healthy condition, and with it may be named *Pimelea spectabilis*. They are both very difficult subjects to deal with, but they need not be so if the plants were watched for the attacks of spider. In nine cases out of every ten this is what causes the leaves to drop off prematurely. Another mistake that is sometimes committed not only with these but other hardwooded plants is this, the mould in the pots is allowed to become too dry. The plants do not suffer so much at this season from that cause as they would when they are making their young wood, but they do suffer, consequently it is better not to allow them to become overdry. It is not possible to describe exactly the state of dryness that the roots ought to be in before they are watered, but it should not be to the extent of the ball parting from the sides of the pot, and when water is applied the whole mass of roots should be saturated.

*Lapageria rosea* and the variety *L. alba* are now in flower. The last-named sort that had pure white flowers in September is now producing them tinged with delicate pink; but what a useful plant this is for producing flowers at a time when fine flowers are scarce! The plant has seldom been without them for more than a quarter of a year. Some persons complain that it is not easily managed, but with the right treatment, either planted out or grown in pots, no plant can do better. It does not succeed in clayey loam, and many persons both plant it out and pot it in that material. It grows most luxuriantly in turfy peat, with the addition of a little sand if necessary to keep the material open. The roots should always be kept in a moist state, as the plant never seems to be at rest. Strong succulent growths are thrown-up either at midsummer or midwinter.

The Filmy Ferns, which are usually grown in a glass frame in a shady part of the greenhouse, require a little attention at this season, as the fronds sometimes decay and spread contagion to those that are healthy. *Todea superba* and *T. Fraseri*, with the *Hymenophyllums* for a groundwork, are well adapted for this system of culture. They are not only remarkably beautiful, but all this class of plants are instructive to the intelligent cultivator. We pot all of them in a compost of three parts turfy peat to one of turfy loam. The case must be kept a little moist in winter, and in fine days the inmates may be gently dowed overhead. Very little water is required at the roots at present.

—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

HELENSBURGH (Recess). July 18th and 19th, 1876. Mr. J. Mitchell, Sec.

## TRADE CATALOGUES RECEIVED.

The Lawson Seed & Nursery Company, 1, George IV. Bridge, Edinburgh, and 54, Bishopsgate Street Within, London.—*Catalogue of Forest Trees, Shrubs, &c.*

William Chater, The Nursery, Saffron Walden.—*Catalogue of Hollyhocks and Roses.*

Thomas Sampson, Yeovil, Somerset.—*Catalogue of Gladioli.*

James Dickson & Sons, Newton Nurseries, Chester.—*Catalogue of Fruit and Forest Trees and Evergreen Shrubs.*

Kelway & Son, The Royal Nurseries, Langport, Somerset.—*Catalogue of Gladioli.*

Francis & Arthur Dickson and Sons, The "Upton" Nurseries, Chester.—*Catalogue of Forest and Ornamental Trees, &c.*

Deafosse, Thulliers & fils, at Orleans.—*Price Current of Fruit Trees, Roses, and Ornamental Plants.*

Charles Verdier, fils, 23, Rue Baudricourt, Paris.—*Catalogues of Roses, Fruit Trees, Gladioli, Herbaceous Plants, &c.*

Robertson & Galloway, The Nurseries, Helensburgh.—*Catalogue of Liliums and Gladioli.*

## TO CORRESPONDENTS.

\*. All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

**COLOURED PLATES OF FRUITS (E. Richardson).**—The finest work is Deane's "Jardin Fruitiier du Muséum," but it is very expensive. Van Houtte's "Pomona" is much more reasonable in price, and contains very excellent portraits of the leading kinds of Pears.

**MOVING AUCUBAS AND EUONYMUS (—).**—As soon as the snow is gone and the ground is sufficiently dry to enable you to work it properly, Aucubas and Euonymus may be moved with safety.

**INTRODUCING CAMELLIA TO HEAT FOR FLOWERING (A Subscriber).**—You may place the plant in a day temperature of 60° and night 50° for to expand the flowers if you require the plant to flower at an earlier period than it would do in a lower temperature; but if the buds were set early it would flower readily at this season in the lower temperature named. Camellias and Oranges might be kept in a house in which Cucumbers are started in March until they have completed their growth, and should then be removed to a cooler and drier house, the former having shade from bright sun.

**EUPHORIA SPLENDENS LOSING ITS LEAVES (Idem).**—The removal of the plant from a warm house, and undergoing a journey of some distance, is sufficient to account for the leaves falling; they, however, generally fall at this period if, as should be, the plant is kept dry up to February, after which water being given it will flower in April, and continue to do so for several weeks.

**OXALIS CULTURE (H. G. M.).**—Of the easiest culture, we are surprised you cannot induce them to flower, and growing luxuriantly. It appears you give them too liberal treatment, and keep in the shade at some distance from the glass in a shaded and moist position. Grow them on shelves near the glass, potting when they are beginning to grow in a mixture of three parts light fibrous loam, one part leaf soil, and two parts sandy peat, with a part of silver sand, watering moderately until in free growth, increasing the supply with the growth, and after flowering, or the growth is complete, diminish the supply, ceasing watering when the leaves become yellow, and keeping dry until the plants again start into growth. They do well in a light airy position in a greenhouse. Their great bane is too much water and shade.

**HEATING POWER OF DUPLEX STOVE (Idem).**—You mistake as to the heating power, or alleged heating power, of "the portable greenhouse stove." It is not presumed that it will keep frost out of a house 20 feet square, containing as it does 400 square feet, and your house will have 198 square feet, the heating power of the stove being such as to exclude frost from a house of at least a quarter the size of yours, such as many amateurs have, and derive great pleasure from it only they can safely winter the plants they have reared in summer, which the aid offered by these inventions enables them to accomplish. To exclude frost from your house would require two 2-inch hot-water pipes all around, equal to a heated surface of 58 feet (superficial) at a temperature of 200° to be safe in severe weather, and for that you will require a stove boiler with 2-inch hot-water pipes.

**DIVIDING AGAPANTHUS (J. N.).**—The best time to do this is in May or when commencing growth, the flowering being past, and this you may do by removing the soil, and disentangling the roots, part into as many divisions as you wish plants, taking care to have a crown to each division with its roots. A compost of three parts fibrous loam, and a half part each leaf soil, sandy peat, and well-rotted manure. Good drainage and very free watering during growth is necessary, with sprinklings overhead frequently until the plants are established, and a rather closer and moister atmosphere with slight shade from bright sun, afterwards expose fully.

**PROTECTING HARDY FERNS (A. F.).**—The Ferns being hardy will not require any protection except in a bleak position, and then some sort of shelter to break the force of cutting wind is all that would be required branches of evergreens answering well.

**MANURING GROUND FOR POTATOES (Idem).**—It is quite right to manure the Potato ground at this time of year, throwing up the ground roughly for the winter, especially as the soil is clay; and the first open weather in or after February, in dry weather only, turn the ground with a fork, throwing level, and apply when the work is complete a dressing of quicklime at the rate of a bushel per rod (80 square yards), and before planting point-in with a fork. The ground, unless it has been cropped with Potatoes every year without change, would grow Potatoes without invariably failing from disease. Plant kinds that mature by July or early August, and you will have a minimum of disease.

**ORCHID TREATMENT (M. J. T.).**—*Cypripedium splendens* is a variety of *C. caudatum*, and is synonymous with *C. caudatum superbum*, and requires

the soil and treatment of the other kinds requiring stove treatment. We have seen it in fine flower in September and March. *Olanthe vestita* oculata flowers at this season, and requires to be kept rather dry, having a dry stove, for if moist the flowers spot. In spring it commences growth, and should be repotted, using lumpy brown peat, with a fourth very fibrous light loam, a fifth of old dry cow dung, and a sixth each of lumpy charcoal and silver sand. Plenty of moisture when growing, and dry when at rest. *Bolbophyllum speciosum* is probably *Oncologyne speciosa*, which flowers in late summer, for which cultural hints are given in the "Orchid Manual."

**CLIMBER FOR STOVE (Idem).**—*Pasiflora kermesina* has bright red or crimson flowers, and would succeed in a temperature of 50° to 65°. Williams's "Select Stove and Greenhouse Flowering Plants" and "Ornamental-foliage, Plants" may suit you.

**SELECT CHRYSANTHEMUMS (L.).**—Large-flowered: Empress of India, Golden Beverley, Lord Derby, Mrs. G. Bunde, Laurinda, and Venus. Pom-pone: James Forsyth, Rose Trevenna, Model of Perfection, Saint Michael Aurora Boreale, and Mrs. Hunt.

**COMPOST FOR ROSES IN POTS (Idem).**—The compost for these on the Briar and Manetti stock requires to be rather stronger than for those on their own roots, but being Teas the soil should be rather lighter than for Hybrid Perpetuals on those stocks, as the scion exerts considerable influence on the stock. Three parts turfy medium-textured loam, and one part each old manure and leaf soil, will grow them perfectly.

**PEACHES FROM WALL UNSATISFIED (A Subscriber).**—The best thing to do would be to root out the tree, removing at the same time six barrowloads of the soil that is near the base of the tree, then add the same quantity of turfy loam, or any fresh soil if this cannot be obtained. Plant a Royal George in the place of the tree that you remove.

**TREATMENT OF ESPALIERS (Holly Bank).**—Five feet is a good height to make them, the wires to be 8 inches apart. The borders may be of any width, as the roots will soon extend many feet.

**PRUNING FRUIT TREES (St. Vincent).**—If they were not summer-pruned they must be pruned now, as the young wood, if left on, would branch out next summer and spoil the appearance of the trees. We have always recommended summer pruning, especially if the trees have a tendency to make much young wood.

**SELECTION OF VINES (E. S.).**—Madresfield Court Muscat and Muscat Hamburgh are both well adapted for a cool vinery. Venn's Muscat has not been sufficiently proved yet, except in the hands of the raiser. It is said to ripen at the same time and with the same treatment as Black Hamburgh.

**PEACHES IN POTS (J. T. S.).**—1. They may be grown in pots for man years with annual surface-dressing or repotting. 2. Early Beatrix, Early York, Royal George, Bellegarde, and Barrington; these are the best Peaches for you. Neectarines—Lord Napier, Murray, Pine Apple, Elruge, Violote Hative, and Victoria. Place them in a temperature of 50° early in January. If you do not want late sorts omit the two last named of each.

**VINES FOR COOL VINERY (H. T. H.).**—Duke of Buccleuch, Foster's White Seedling, Buckland Sweetwater, and White Frontignan (as you wish for Muscat flavor) would be suitable white kinds; and Black may be Madresfield Court, Venn's Black Muscat, Black Prince, and Tretham Black. They would all succeed with a little fire heat when coming into flower and when ripening. The distance is rather close. We should advise you only having seven instead of eight Vines. Two rows of 4-inch piping along the front would be sufficient for a house of not more than 12 feet in width; but for a house of 15 feet three rows of 4-inch pipes would be required, it being better to have too many rather than too few pipes, as the heat is best given off at a low than high temperature.

**RANUNCULUSES (Sussex).**—They like a deep rather moist soil, well and deeply dug, well manured now, and the ground thoroughly exposed to the weather. The Persians are the most beautiful, having finely-formed flowers. The Scotch have fine spotted flowers; and the Turbans have Peony-formed flowers, larger and earlier than the Persians. Have a bed of each; or if you can have but one, take the Persians in the named varieties.

**POINSETTIA TREATMENT AFTER FLOWERING (Poinsettia).**—Keep dry, not allowing the wood to shrivel, and out down in March, putting in what outtings are required, selecting the firm ripe wood, and strike in brisk bottom heat. The temperature after flowering should be 60° from fire heat, and 6° higher by day from the same means. Water moderately after the plants are started into growth, sprinkling overhead twice daily, which will be sufficient moisture to cause them to start into growth, and repot when the plants have shoots an inch long. A moist atmosphere, with careful watering at the roots, taking care not to over-water nor to allow the plants to flag, keeping near the glass, and well ventilated, so as to induce a sturdy growth, and a temperature 55° to 60° from fire heat, and 10° to 15° or 20° rise from sun, keeping power and drier after early August.

**PIPING FOR CONSERVATORY (Elin Lodge).**—Your piping must be single, or you would have were it double—i.e., a flow and return pipe, 60 feet of 4-inch, and 40 feet of 8-inch piping, sufficient to give you a temperature from fire heat of 50° to 55°; but we should have them all 4-inch, and a flow and return along the ends, the half of one side, and the whole of the other, as shown, and this would give you 100 feet of 4-inch pipes, enabling you to have the temperature required without heating the pipes to a high temperature.

**INSECTS DESTROYING OXYLAMENS (—).**—The grubs which have out through the roots of your Oxylamens are the larvae of the destructive weevil *Oxyrhynchus sulcatus*. The earth ought to be carefully sifted and the grubs destroyed. The beetles which are produced from these grubs are nocturnal, and must be sought for after dark with a light.—W.

**NAMES OF FRUIT (T. E. Cobb).**—The fruit is Duchesse d'Angoulême, in a state in which it is often met with in unfavourable seasons like the past. You have not numbered the other sorts. The large one is Doyenné du Comice, the second largest Napoleon, and the small one we are not certain about. (E. T.).—The brown-russeted Pear is Burré Bosc, and the green one is Léon Leclerc de Laval; the latter is a stewing Pear. (Penge).—3. Bad Goubault; 4. Cruesande; 5. Knight's Monarch; 6. Colmar; 7. Huyake's Victoria. (J. O. W.).—Apples: 1. Blenheim Pippin; 2. Golden Noble. Pears: 1. Red Doyenné; 2. Comte de Lamy; 3. Achau. (Alberti Withington).—1, not known; 2 and 8, Comte de Lamy; 4, not known; 5 and 6, Golden Winter Pearmain; 7, Herefordshire Pearmain; 8, Dunselow's Seedling.

**NAMES OF PLANTS (W. Reed).**—1, Pinus exelsa (?); tree should be seen to be certain; 2, Cryptomeria japonica; 3, Picea pinsapo (Lobbi is its synonym); 4, P. cephalonica; 5, Cedrus Libani (perhaps Decadars); 6, Cupressus macro-



carpa (or *Governans*—tree should be seen); 7, *Pinus cembra*; 8, *Juniperus chinensis mascula*; 9, *Abies Smithiana* (*Morinda* its synonym); and 11 cannot be determined unless from good specimens from the tops of the trees.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### LES BASSES-COURS DE L'ANGLETERRE.

#### CHAPTER VI.—PENSURST.

We climbed up one of those beautiful hills so peculiar to Kent, where the wild flowers nestling among the dark green shade of the ferns lined the banks. It was called Smart's Hill, and smart truly it was in the clothing of August flowers. When we reached the top we looked down upon the valley beneath and on the distant hills beyond, and took our fill of one of those panoramas of beauty that this part of Kent is so rich in. It was worth while coming to see the view alone. There was Penshurst Place lying below among the fine trees, and on the hills beyond near a score of village churches could be counted among the distant woods; while here at the top, close to where we were standing, was Mr. Boissier's poultry establishment.

This yard has only been started about four years, but the owner's name is gradually working its way into the various prize lists. Rome was not built in a day; and those fanciers, if they are worthy of the name, who buy the best birds of the season and show them to death, or let them fall all to pieces, are as meteors in the paths of the poultry world. Weariness, despair, disgust fall upon them and their reigns are short, for their names disappear as quickly as they came. Not so, however, with Mr. Boissier: he has bought good birds from good yards, and, satisfied with reasonable returns, is now beginning to reap the reward. It is just as much pleasure to us to visit the rising establishments as those of veteran fanciers, and so in our peregrinations after les basses-cours we like to look up everybody.

The establishment we are writing about is one of those where small moveable houses with small changeable runs are chiefly used. Mr. Boissier has given up a fair-sized field to his birds, and all over the place we find these runs dotted about. Each little house will hold four or five birds. They are built upon a plan of their owner's, and in many ways resemble those of the Messrs. Crook's; but Mr. Boissier has exercised his own ingenuity and turned out really capital little houses for the kind. Each house is on wheels or can be moved with handles, and each has a small moveable wire run attached to it. These little places are moved in a circle, and being moved every two or three days the birds are always on fresh grass. By this means the whole of the field is gradually worked over, while between each movement the grass has time to get fresh and to grow again. The chickens are loose in the field, and many of the hens when not breeding; but the cocks cannot be allowed to have their liberty, as the pens are only made of ordinary wire netting, and they would consequently fight with each other. Old bags or coarse canvas can be laid over these little wire runs in the sunny time of day, so that the birds can always have plenty of shade. We really were quite taken with the methodical way this department was worked and with the general healthy appearance of all the birds.

There were other fixed houses in blocks, which, though quite roughly made and built at no great outlay, still the birds looked well in them; and our ideas were once more strengthened that birds well fed and attended to do better in cheaply made serviceable houses than ever they do in those wonderful erections that we sometimes see with coloured glass windows and elaborately constructed roofs. We must not forget to mention a capital arrangement for sitting hens. It was like a long row of rabbit hutches, all moveable, with a strong well-eaved roof. In each compartment was a floor of grass, and there the birds could incubate without any fear of disturbance, while, standing as they did in the open air, the nests are always fresh and without offensive odours. There was also a small block of houses and runs, built in the shade, for single cocks, which we should say would answer the purpose well, though, had we been the architect, we should have made them rather larger. The part, however, which struck us the most were the moveable houses and runs, and the systematic way in which they seemed to be arranged. We had often heard of these pens being so used, but never saw such a group of them before in such thorough working order.

Now we must turn to the inmates of the pens. We find them many and various. Crêves, Houdans, White Cochins, Black Hamburgs, Light Brahmas, and Booted Bantams we saw, many of them really splendid specimens and mostly in wonderfully robust health and condition. Mr. Boissier in forming his yards looked out for fanciers who were retiring from some especial breed, and then bought all their stock. In many cases this was successful, for we find his chickens a very creditable lot. Still we do not advocate this plan, for the new purchaser, having no knowledge of the peculiarities of some of the birds, must mate them with a certain amount of risk. If going in for a new variety ourselves of which we had no particular knowledge or

experience, we should prefer leaving the selection of a good pen for breeding purposes to some honest and straightforward breeder. Among Mr. Boissier's birds we were much taken with the French. The Crêves especially were a very fine lot of birds, being remarkable for crests and good combs. We believe they were principally of Mr. Feast's strains, and the success of this gentleman's Crêve cock for three years in succession at the Palace, though now no longer in his own possession, speaks well for the strain. One or two hens we admired immensely, but all were good in colour. The Houdans we found in a moulting state, many of them, but their frames and shape betokened their quality, and Mr. Boissier has been successful this season with their chickens both in his own name and others. The Black Hamburgs were a fair lot, but the chickens' combs lacked the north-country shape. We do not wonder exhibition Hamburgs are few and far between in the south, for their combs are awkward things to breed good naturally. These three breeds were in a large block of fixed pens on one side of the poultry field, with trees shading them in the rear. In the single-cock pens we found some nice White Cochins and a good Crêve cock or two, but these were also in process of changing their plumage. In another block of fixed houses and runs were the Light Brahmas. The hens were especially good; the one which took the cup last January at Portsmouth was moulting nicely. The produce of these birds, too, were certainly above the average, and many have realised good prices, for Mr. Boissier is always ready to take a fair price for his birds. One cockerel we then thought highly of we saw a few weeks afterwards well to the front at Edenbridge, from whence he speedily went to a new home, we hear.

In the moveable pens, all over the field, were the White Cochins and White Bantams, and they really looked very striking. We saw two good old cocks which, we are sorry to learn, have since met untimely deaths, but the hens were the best, and very nice birds many were. Some of the chickens, too, were very promising and have since come to the front as we expected they would. All the intervening space between the runs, and all over a shrubbery and small farmyard, were the younger chickens, which will be in their turn penned in the moveable runs when they come to the years of discretion. We must not forget to mention the Booted Bantams. There was a very nice little stud of them, and we have watched Mr. Boissier's successes with them with much pleasure.

We spent so much time over the little pens and their inmates that the afternoon had almost waned before we left the chickens' field, but we were obliged to have a peep at the Rabbits, for they looked so clean and healthy in their admirably constructed hutches. There were Himalayans and Silver-Greys, the former really extremely good in all points, and their owner told us he had been very fortunate with them. After this a hasty peep round a very pretty garden arranged with the utmost taste, where the colours in the beds, too, blended most beautifully, and then we passed once more on to the high road and descended Smart's Hill. As we went down we thought over the yards we had left, and came to the conclusion that Mr. Boissier had too many irons in his poultry fire. It is all very well for those who keep a manager, or those who go into the fancy for the sake of the profits, to keep a great number of breeds; but for a gentleman who simply keeps them for a hobby and gives personal supervision to them we are quite convinced two, or at the most three, breeds are sufficient. We are glad, then, to see Mr. Boissier has himself realised this; for from the weekly King Street advertisement we learn that Mr. Stevens had authority to sell without reserve, on the 7th inst. last, all the Crêves, Light Brahmas, and Black Hamburgs from the Penshurst yards. Valuable though the specimens mostly were, still we do not think Mr. Boissier will regret this step, and we wish him much success with his reserved forces, for he will now be able to bring them to much greater perfection, and to spend more time in producing chickens worthy of the breeding stock he has at Penshurst.—W.

### BRISTOL POULTRY SHOW.

THE tenth great Bristol Exhibition of poultry and Pigeons will be held on the last day of this year and the first and third days in next. On the first page of the little book we find the subscription list, and the total amount comes to about £80. This is not a large sum, and considering Mr. Cambridge so nobly caters for his poultry friends single-handed, we feel sure all will do their best to support him and prevent his venture being a losing one. The entry fees are as usual, and the last day of entry is December 7th. Admission to the Show will not be allowed to anyone until the awards are made, and in making this rule we know Mr. Cambridge means to keep to it. Double baskets will be allowed, and will, we are sure, bring many extra entries. The prize birds will be offered by auction on the first day of the Show at 2 p.m. An especial rule tells us that no telegrams relating to prizes won will be answered on the day of judging. The Judges are announced—viz., for poultry Messrs. Hewitt, Teebay, and Dixon, and for Pigeons Messrs. P. H. Jones and



Charlton. There are twenty-two silver cups to be awarded in the poultry classes; of them one, value £10 10s., will be given to the best pen in the Show, in addition to any other cup. The rest of the cups are chiefly £5 in value. The classes are well grouped. There are four divisions for nearly every variety, two being for adults and two for chickens. We are glad to see Black Cochins have classes. Brown Leghorns, Malays, Minorcas, and Polish have two classes each. We think the latter variety could have been more subdivided to the advantage of the funds. Bantams are well cared for, but it always seems to us so curious that the Variety Bantams have no class even here. We cannot conceive why they should be so shut out, for if one of the other classes was merged into a variety class—say that for clean-legged Whites, we are convinced it would be more satisfactory to all. Waterfowl are well provided for with many classes and substantial prizes.

The Pigeons are well looked after, having thirty-four classes, eight cups, and two point cups. We find Carriers have six classes, Pouters four, and Barb three. The other Pigeon classes are much as usual. We imagine the point cups will bring out many good teams of birds and make the large exhibitors enter well, having friendly rivalry one with another to see who shall win these silver trophies. We know many object to these point cups, but we never could see how they injured the small amateurs; for the latter class never enter the specimens of their own specialities with these cups in view, and so the disappointment is not for them, and they have all the same as much chance of winning with their entries whether point cups are in use or not; for even if birds are borrowed for the occasion—not that we advocate the system of borrowing—it cannot hurt the amateur whether they appear in the names of Mr. A or Mr. B. Let all come to the front and try to make the Show of this winter as good a one as we found in the Drill Hall on the last occasion.

P.S.—Through the length of our Birmingham report and other pressing matters last week we regret that the above had to be omitted; but we feel sure Mr. Cambridge will still accept the entries of those exhibitors who had been waiting for our usual notice of the schedule if they will now enter by return of post.—W.

#### WHITE-SKINNED SILKIES.

These are fine fowls, and will no doubt become popular. They are quite different in some respects from their black-skinned relatives, and much superior on the table, in appearance at least. At three months old they make very delicious broilers of a nice size. Their appearance is odd; crested, bearded, and with feathered legs, red combs, and wattles, we think them handsomer than the purple-visaged birds, besides having the advantage of more size. They have some traits which should make them rivals to Bantams. They lay well, hatch splendidly, are excellent mothers, while as chicks they are very hardy, mature quickly, and forage well. A four-foot picket fence will restrain them within bounds, while they will thrive and look happy in less space than any breed yet known, Bantams being almost wild compared to them.

We believe there are as yet but one or two flocks of this variety of fowls in this country, and none in England. Those here are mostly, we think, the descendants of two cocks and four hens, imported from Japan in 1874 by Mr. George H. Carey of New York. Three of the original birds are still living and vigorous. There is no doubt that the white skins of this importation make them a valuable addition to our poultry.—(*American Pet Stock Bulletin*.)

#### THE YORKSHIRE SOCIETY'S EXHIBITION OF POULTRY, &c.

This was held in the Cattle Market, York, November 30th and December 1st and 2nd. The Judges were for Poultry Mr. R. Tebbay, Fulwood, Preston; Pigeons, Mr. H. Brown, Walkley Sheffield; Rabbits, Mr. M. Millington, Colliergate, and Mr. A. Hudson, Paragon Street, Hull. The following were their awards of the prizes:—



even a highly commended. *Hamburgs* were admirable: all the classes were well represented and the quality good. Mr. Long sent a good team of birds, but many of them were adults, and they wanted more time to show off well. It seems to have been a very slow and bad moulting season. Perhaps the *Asiaties* have come out the best, but we have seen but few birds that would not even now have been better for three or four weeks longer. Silver-pencilled *Hamburgs* was the weakest class, but the winners were well up to the average. The second-prize Silver-spangled hen was poor in markings, her mate must have pulled her through. In Blacks the hens and pullets were better than the cocks. The latter seemed to lack colour rather, and be a shade coarse. *Malays* made a small class, as they have done generally this season. Mr. Hinton walked off three prizes with three good lots of birds. The noticed pens were also good. In the Minorca, Leghorn, or Andalusian class splendid specimens of the former variety won all three prizes. The winners were very good, the first-prize hen a beauty all round. *Bantams* were many in numbers, and the quality was good, especially in the Variety class, where capital Blacks were first, and Gold and Silver-laced second and third. In the Any other Variety class Silver Polande of good quality were first, and second and third neat Black Poles, the hen in this pen being especially nice in crest. The highly commended birds were good, and comprised Silkie, Sultans, Geese, Turkeys, &c. The Sale classes were very fair, the two first-prize pens of Dorkings certainly the best. *Waterfowl* very nice; the first Aylesburies good, ditto Rouens, and the winning Black Ducks certainly very lustrous and small; second to fancy, and third to same exhibitor's other pens. Highly commended good Call and Wild Ducks.

**Pigeons.**—The classes were very large and the quality generally good. Mr. Hammock brought down an immensely good team of birds, and committed great depredation among the prizes. His Blue Carriers were grand, perfect in wattles and fine in shape. Tumblers also and Pouters were good, and Mr. Hammock once more was an easy victor, though the third White of the latter breed closely pressed on him. Dragons had two classes, and the quality was capital; Mr. Gregory's Blue was a nice bird, and cheap at catalogue price of 40s. Owls very good in every way, and many pens came in for the Judge's cards. Turbits quite beautiful. Mr. Salter won again with his young Black, a good bird in every way; second to the same gentleman's neat Silver, which had a very good head. Jacobins good; Red, Yellow, and a Red won in the order named, the first being admirable in colour. Fantails made a very interesting class; the winners were all Whites, and their places good. Magpies were again a nice collection, and one exhibitor cleared off all the three prizes with three good exhibits. Antwaps were a large lot—half a hundred or more; the class was even in quality, and winning precariously. The Variety class was very varied and very pretty; a grand Black Trumpeter won of the Russian type, good in every way. The Sale class was very nice, and we saw one or two cheap pens of birds. We furnish full awards below.

DOMMONS, -1 and Capt. T. C. Burnell, Micheldale, 2, E. Barnett, North  
Falkenstein, 3, Mrs. H. Vivian, Ac, A. Whaley.  
COCKING, -Bapt of Cockington, -1 and Capt. Rev. G. F. Hodson, 2 and 3, W. E.  
Smith, Cheltenham, 4, H. Frost, C. Bloodworth, 5, A. M. Murphy, Any  
other society, -1, E. S. B. Woodruff, Farnbury, 2, J. W. Whitehead, Bridg-  
water, 3, Mrs. J. T. Holmes, Bath, Ac, W. E. Smith, T. A. Dean, 4, C. Blood-  
worth.

**BRANKMAN.**—Dark.—1, J. Long, Barnet. 2, J. D. Peake, Chartsey. 3, E. Ayre, Headington. Ac, Miss E. C. T. Burd, W. Phillips. 4, Bridgewater & Youall, E. Feast, E. Ayre. Light.—1, T. A. Dean, Marston. 2, Mrs. J. T. Holmes. 3, S. Sambrooks, Chipping Camden. Ac, A. Bigg, Mrs. S. Crook, H. Feast, C. Woodworth, J. Long. 4, S. Jones.

BRANFORD, J. LORIG, c, N. J. *Stead.*  
BRANING—1, H. Blower, Tottenhall. 2 and 3, Mrs. Allsopp. *Ac, J. Hewick.*  
BOUDANS—1, S. W. Thomas, Reth. 2, W. Pearce, Ripley. 3, J. E. Clayton, *Offerton.* *Ac, Mrs. Weidman, J. H. Baby, M. H. Sturt, J. Wath.* c, F. Hanson,  
M. H. Sturt, Rev. E. Handley, E. Harvey.  
FRENCH—*Any other variety*,—1 and 2, R. Burnell, Farington. 3, W. Cuffack,  
Juk. Littleport. *Ac, Miss A. Sharp, M. H. Sturt, W. F. Upsher.* c, E. Burnell,

*Game. Black-breasted Red.*—1, W. H. Stagg, Netheravon. 2, E. Winwood, Worcester. 3, R. J. Pratt, Charlbury. *Ac.*, J. Loader. *c.*, R. Swift. *Brown-breasted Red.*—1, Miss Osborn, Yarston. 2, J. Cook, Worcester. 3, H. Brown. *Ac.*, R. Swift. 4, A. Dean, H. L. Dunsford. N. H. Vivian, W. L. Blake. *Any other variety.*—1, R. Brown, Swindon. 2, E. Winwood. 3, J. S. Maggs, Tetbury. *Ac.*, F. Bailey.

**F. Bailey.**—*Golden-spangled*.—1, T. E. Jones, Wolverhampton. 2, Mrs. Bolls, Monmouth. 3, J. Long, Ac. 4, J. Melville. *Silver-spangled*.—1, J. Robinson, Garslang. 2, H. Feast, Swansea. 3, J. Long, Ac. 4, T. Reeves, c. T. Rogers, I. Garslang.

Reeves, J. Carr.  
- *Hampshires*.—*Golden pencilled*.—1, G. Peckham, Exeter. 2, H. H. Thompson, Colehill. 3, C. W. Gitts, Sutton Bridge. 4c, T. Reeves, Mrs. Roda. c, Hon. R. Pensonby. *Silver-pencilled*.—1, J. Long. 2, J. Robinson. 3, H. Pease.

**HAMMINGS**.—*dry otherleavists*.—1, E. Feast. 2, T. Chapman, New Swindon. 3, T. Southerden, Bristol. Ac, E. L. Williams, D Lewis. c, J. Robinson.

**MAKAY**.—1, S. and B. J. Hinton. Ac, Rev. N. G. Ridley, W. L. Blake.

*Myrmecops*, *Andalusiensis*, and *Leachensis*.—1, J. B. W. Williams, Steaks. 2, F. Blackwall, Tavistock. 3, H. Hunt, Bath. 4c, B. Percy, E. Burrell, J. Harwood. c, J. H. Fry (3).

WOOD. C. J. H. Fry (s).  
BANTAMS.—Game.—1, G. Evans, Worcester. 2, R. Swift, Southwell. 3, J. Mayo, Gloucester. 4, B. W. Cochrane, 5, & J. J. Stephens. Any other variety.  
—1, R. H. Ashton, Mottram. 2 and 3, J. W. Lloyd, Hington. 4, R. S. S. Wood.

ANY OTHER VAMPIRE.—J. J. Long. S. J. Hinton. S. T. Norwood, Churchfield.  
As. R. S. B. Woodgate. H. Feast. C. Bloodworth. Mrs. J. T. Holmes, Mrs. Bala,  
T. A. Dean. C. S. W. Thomas. J. Calcott.

1. A. Dean. 6, S. W. Thomas, J. Calvert.  
EXTRA PRIZES.—1, A. D. Hussey-Fraser, Highworth. 2, Miss A. Smith. 3c,  
G. Battell (2), J. Dean.  
SUNDRIES CLASS.—Goods.—1, Miss J. Milward. 2, A. Stradling. 3, H. Hunt.  
4, W. Phillips. 5, H. Hadden. J. Swinson. H. Blower. Mrs. S. Crook. W. E.

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Jm. J. EINE, J. & E.  
 H. Haddrell, Miss H.  
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 Steven J. W. Phillips.  
 o, Mrs. J. J. Hawick.  
 J. Hedges. Ac, Mrs.  
 H. Bailey, A. Rev. H.  
 usy, G. C. Martin, F. C.  
 p. T. Osmond, J. Arm-  
 l and S. W. Boutecher.

### COTTAGERS' PRIZES

BRITANNIA.—Dork. 1, W. Phillips, New Swindon. 2, W. V. Edwards, Swindon.  
 B. Bent, Swindon. Light.—1, J. A. and S. J. Lee, Stratton Green.  
 SPANISH.—1 and 2, R. Watts, New Swindon. 3, M. H. Wallis, Wroughton.  
 HAMBURGERS.—1 and 2, T. Pattison, New Swindon. 3, A. Simpson, New Swindon.  
 BULL DOGS.—1, J. Forward, New Swindon. 2, J. Osmond, Swindon. 3, J. H. Cottell, New Swindon.  
 DOCK.—Aylesbury.—1, W. Thomas. 2, G. Simpson. 3, E. Alkatt. Roman.—1, J. Armstrong, Jan. 2, T. S. Hewitt. 3, W. J. Dove.

P	c, T. F.
a	R. Pratt.
a	no other
M	Pratt (M).
v	long, R.
E	c, T. O.
E	Woodm.
F	sk. c, G.
G	W. G. H.
V	c, C. W.
D	Salpa, J.
B	ho, J. G.
F	c, T. F.
B	Xmas, J
H	c, T.
W	R. W.
C	c, O.
	L. H. W.

### CAGE BIRDS

J. S. Bennett,  
 Ham., S. C. J. Salt, As, J. M. Johnston,  
 J. Orledge, F. Bailey,  
 I. C. J. Salt, S. E. W. Latham, S. C. J.  
 S. C. J. Salt, W. Kendall, C. J. Daniel,  
 Gale, S. R. Harvey, As, J. Daniels,  
 S. J. Woodford, I. W. Newman, As,  
 M. J. Jarvis, W. Phillips, R. Dodd, As,  
 C. W. Clarke.

## RABBITS.

Lowe - I. R. Madwick. & A. M. Murphy. 5, R. Bright. Ac, T. Lavis, T. H.  
 Jones. & W. P. Williams.  
 COTTAGE - I. W. Phillips. & H. Hollister. 3, C. Shappard, Ac, W. Phillips.  
 C. Shappard.  
 BRIDGE - I. A. Fardon. & G. Johnson. & W. Matthews.  
 ST. VALENTINE - I. Miss Mortimer. & T. Lavis. 5, Miss M. J. Barker. Ac,  
 T. H. Jones. & G. Johnson.  
 ART OTHER VANTAGE - I. W. S. Smith. 2 and 3, C. Arthur. Ac, W. S. Smith.  
 G. Johnson. & W. F. Ayres.  
 COTTAGE - I. W. Cox. & G. Tall.

## DATE:

**SHORT HAIRED.**—1, S. Hickman. 2, J. Kent. 3, T. Neal. *etc.* Major Prower  
4, J. Farmer, M. Everett, F. Gray. 6, Miss Hunt, Miss Fourscore, H. Shumkins,  
B. Bradford.

**LONG HAIRED.**—1, W. Dean. 2, J. Rogers. 3, Miss A. Whitman. 4, G. R.  
Brett. 5, Farida.

**BIRMINGHAM POULTRY SHOW.**

(Continued from page 487.)

Polands, *White-crested Blacks*.—It is a pity that this beautiful variety is not more popular. We do not think them delicate where nice cover is provided in wet weather, and certainly none look more beautiful in an exhibition pen. Only six cocks and three pairs of hens were entered. The first cock was a beauty, with an immense, well-formed, and very white crest. The second had a round crest, but not such long feathers in it as his predecessor. We liked the highly commended bird much, but he had an inclination to a parting in his tuft. Hens.—The first-prize pen contained one very good but old bird, which shows many traces of gray about her, and has a horribly deformed foot. In the second-prize pen, again, one bird was superior to the other; but taken all round the second-prize pens were very good.

**Golden cocks.**—Here we should have put the second-prize bird first. His crest was not quite so large as the first, but it was much freer from white, and he was in splendid condition, with a fine flowing dark tail. The crest of the first was his point, but what tail he had was nearly white. Hens.—Both winning pens were good, with little to choose between them. We liked the highly commended pair; one of them was most beautifully laced, but they did not quite match in style.

*Silver cocks* were a fine class, every pen being noticed. First had a fine tuft and small spangling; second marked between lacing and spangling. Mr. Adkins' highly commended pen (1804) had a breast spangled like a *Hamburg* in beautiful fashion. Hens, too, were a splendid class; the three pens which failed to gain prizes being all very highly commended. The cup pair, magnificent birds, had the marking between lacing and spangling. One of Mr. Adkins' very highly commended pens (1808) had been we saw claimed for £20, on account probably of their markings being much more inclined to the true form of spangling, which we believe was once common.

Mr. Dixon judged the Polish.

**ANY OTHER VARIETY.**—This class brought together a very interesting collection. We cannot say that we thought the awards all well bestowed. First were *Andalusians*, the hen with hardly any comb—a great deficiency in our opinion. Second very beautiful *Jungle Fowls*, well placed; the hen much resembled a *Silver Pheasant* hen. We were informed by Mr. Leno, their owner, that they were hybrids between the *Bankiva* and *Sonnerata* *Jungle Fowl*. Their price being £5 they were soon claimed. Third were "*Black Indian Game*," in reality *Malays*, and as such they ought to have been disqualified in this class. Fourth *Sooty Greys*; the cock had feathers on his feet, the greatest blemish in this breed. Nothing is easier than to breed lumpy *Cuckoo* fowls with feathers on their legs, but the breeders of the true *Highland "Check Merlin"* will not look at a bird so adorned. There were many good birds in the class, *Silkie*s, *Sultans*, and *White Hamburgs*. Her Majesty the Queen received a commendation for a pair of *Rose-combed Dominiques*.

Mr. Bailly judged the class.

**GAME.**—*Black Red* cocks were an excellent class. Mr. Matthew's cup-winner was a bird of extraordinary style; he seemed to us to combine the fine colour of the old-fashioned type of bird with the long form of the modern. Second a very good bird, but without the style of the cup-winner. Fourth a large and remarkable bird. *Cockerels*.—The winners in this class were good, but beyond them there was much rubbish. We suppose the season has been a bad one for *Game* chickens, for we were quite surprised at the representatives of some yards. The first cockerel was a grand bird; had his hackle only been a little more grown he would, we think, have had the extra prize which went to the *Brown Red* cockerel. His owner refused £30 for him in the Show. In hens we thought the style of the second-prize bird better than that of the first, otherwise they were well placed. *Pullets*.—This was a large class. The cup went to a beautiful bird, but we should have been inclined to place the second-prize bird, belonging to the same owner, first, and his fourth-prize pullet second.

*Brown Red* cocks were an excellent class and well judged, the same bird winning first as at the Palace. *Cockerels* were as a whole a better class than the *Blacks*.

*Reds*.—First and second were very equal. The first-prize bird, which we believe was second at the Palace, received the cup and Messrs. Billing's extra prize for the best *Game* cock in the Show. The fifth-prize bird was, we understand, the *Crystal Palace* cup bird. He did not look in cup condition at Birmingham. Hens were not as a rule a good class, many of them not having good black eyes. The winners were very fair. *Pullets* were an extraordinary good class and well judged. It must have been no easy task to make so good a selection from such birds.

*Duckwings*.—Cooks were a fair lot and well judged; the Palace winner was left out. *Cockerels* numbered eighteen. We much preferred the first and third birds to the others. There were three or four other good-looking cockerels in the class. A class for *Silver Duckwing* cocks brought but five entries. We much admire birds of this hue and would gladly see more of them. Hens were a super-excellent class far beyond the other *Duckwing* classes. The winners were all A1, and the highly commended birds worthy of prizes. *Pullets*.—Some good birds were to be found in this class, but they were strangely placed, the first winner being in our opinion one of the worst in the class.

*Black and Brassy-winged* cocks were a fair lot; both prizes went to *Brassy-winged* birds. Hens.—The first-prize pullet, a *Black*, looked as if she had brown-red blood.

*White and Pile*.—In the class for cocks there were many good birds, but the Judge seemed to have a strong preference for yellow-legged birds and left out many excellent willow-legged ones. The cup went to a rich-coloured *Pile*. Second was also a *Pile*. A nice *White* bird (*Saunders*) was highly commended. Hens.—The same exclusion of good willow-legged birds took place in this class. The cup went to a beautiful *Pile*, which was claimed for £20. Second another good *Pile*.

The *Undubbed* class for cockerels was a good one. Why the class should be confined to birds of the year we cannot see. Most of them go home to be dubbed as soon as the season of such classes is concluded, and their ostensible object is defeated. First prize went to a *Black Red*, second and third to *Brown Reds*.

Mr. Smith judged the *Red Game*, Mr. Lowe the *Duckwings* and *Piles*, and Mr. Lane the *Undubbed* class.

**BANTAMS, Gold or Silver-laced.**—This variety we are glad to see is partially recovering in numbers from the monopoly of one or two great breeders. Nine pens were shown. First of course was Mr. Leno, with beautifully-laced *Silvers*, to which the cup for best pen of Bantams other than *Game* was awarded. Second were *Golden*, a good pen. Mr. Hodson's *Silvers* were well-marked, but too yellow in ground; and several otherwise good pairs of *Golden* were too large.

*Whites* mustered nine pens, more than of late. First were a fair pair, the cock's comb larger than we like. We preferred the style of the second-prize pair.

*Black* were badly judged. First a poor falcon-tailed cockerel and a large hen; second contained a bad cockerel. The best pen in the class was Mr. Cambridge's unnoticed one; 1885, highly commended (*Draycott*), was also good.

*Any other variety.*—First a curious and pretty pen of *Black-booted*, a trifle large; second were speckled birds, *Indian* we presume.

*Black-breasted Reds* do not hold their own or fill the enormous classes they did a few years ago. First were a stylish pair, the cock with hardly enough colour on wing. Second prettily formed, the hen with an even dark breast, a little big. Third a pen in which the hen had too many light shafts in her wing-feathering. We much admired the shape of the cock in the fourth pen, but he is too big.

*Brown Reds*.—The cup went to this variety—a very good pair; the cock small and specially taking. The second-prize pair we thought too large.

*Duckwings or Piles*.—The first prize in this class went to a pretty pair of *Piles*; second and third to *Duckwings*.

There were two classes for single *Game Bantam* cocks; in that for *Reds* the cup went to a singularly good *Black and Red*. In the other class a *Duckwing*, good in colour but too heavy in tail, was first. A selling class for Bantams followed. *Game Bantams* won, but purchasers seemed chiefly attracted by two pens of Mr. Leno's *Sebrights*.

**DUCKS.**—The *Aylesburys* this year beat the *Rouens* in weight as much as the *Rouens* surpass them in numbers. The first-prize pair in the Show reached the almost incredible weight of 21 lbs. 9 ozs., while the first *Rouens* only weighed 20 lbs. 6 ozs. We wish that the test of weight might be abandoned in the case of *Ducks* as it has been long since in that of *Dorkings*. The first-prize *Rouens* were certainly very symmetrical for birds so fatted.

*Black East Indians* were a wonderful class, the cup pair magnificent. The second pen, too, contained a lovely drake.

*Mandarins and Carolinas* both had classes, as also had *Call Ducks*, but strange to say but two exhibitors showed them. We suppose they are troublesome to catch.

**IN ORNAMENTAL WATERFOWL** Mr. R. Gladstone was first with elegant little bare-headed *Geese*. Second were *Ducks* whose names we do not know, prettily marked birds, their bills having yellow patches on them, and their foreheads red.

*Geese* were chiefly remarkable, as usual, in the scales. The first *White* pair weighed 58 lbs. 9 ozs.; the second, 52 lbs. 4 ozs. The first *Grey* pair, 51 lbs. 9 ozs.; the second only 39 lbs. 6 ozs.

*TURKEYS* were grand, and many birds exchanged hands at high prices. The weight of the first old cock (88 lbs. 12 ozs.) has been exceeded, but the first-prize hens, weighing 50 lbs., were the largest we have ever seen, and were bought at the auction for 16½ guineas. The first young cock weighed 29 lbs., and young pair of hens 32 lbs. 8 ozs. The *Cambridge* breed, with a dash of *American* blood, seem now to prevail to the exclusion of the handsome *Black Norfolk*.

It struck us that there were not so many sales as in former years, and that second-rate birds were going cheap, while really first-class birds realised high prices. Mr. Percival's *Dark Brahma* pullets were claimed for £30, Mrs. Arkwright's third-prize *Coloured Dorking* hens for £20, Mr. Adkins' very highly commended *Silver Polish* hens for £30, Mr. B. Walker's *Pile Game* hen for £20, Mr. Daff's *Turkey* hens for 16½ guineas, and many other birds realised high prices.

## THE JACOBIN.

THE readers of "our Journal" are presented this week with a fac simile of the engraving of the *Jacabin* taken from the large-paper edition of the "Treatise on Domestic Pigeons," published by C. Barry, A.D. 1765. There are twelve portraits of Pigeons in this book, but the *Jacabin* is by far the best; some of the others are bad indeed. Although no *Harrison Weir* or Mr. Ludlow had then arisen—both artists and fanciers, yet the *Jacabin* being so much better than the other eleven pictures inclines one to think that he who drew it understood the *Jacabin* better than he did other Pigeons.

Here then we have the best picture in existence of the *Jacabin* as the bird was just 110 years ago. Although being an

engraving there is no colour, yet we see there is the bald head and the white flights and tail; moreover, the thighs are evidently dark, the head is small and round, the beak short and down-faced in a slight degree. The bird seems to have the rose, and to be bordering upon a mane; I say bordering, for the division at the back seems to be partial.

I am no slavish follower of exactly what went before us, but desire at any rate that advances should be on the old lines, because the fancy is an historic thing. Those who are sticklers for exactly what was in existence many years ago are naturally old fanciers, and it is usual that old men think what existed in their youth was the best; in old age the past is idealised. Then there is the opposite fault of the young fancier, who has a tendency to disparage whatever is new. But truth as usual lies in the middle path. That there have been changes in the fancy is very apparent, thus: the Turbit was first plain-headed, then shell-crowned, and lastly, as now, point-headed, each taken in

no bad thing, as it adds interest to a show; but toleration there should be, and kindness there must be.—WILTSHIRE RACROX.

I see by "WILTSHIRE RACROX's" report of the Crystal Palace Show that I must rank myself among the "very prejudiced," not a nice class to be in, and on reading it I felt strongly inclined to classify him in return, but what followed more than reconciled me to it, as he presently admits that English Owls "have beauties distinct from the foreign birds; so that as there is only one standard for Owls, he admits all that Mr. Hnie and myself have been contending for. He has therefore only to find another name for his pets, and the matter is settled.

When on Jacobins he gives me what no doubt is meant for a pleasant poke in the ribs when he says, "But tell it not in Dundee, they were all low-cut and clean-thighed." Now as no one but myself, so far as I know, has written from Dundee on

Fig. 108.—THE JACOBIN.

turn an improvement. The English Trumpeter has as a prize bird disappeared; perhaps a mistake. The English Owl, happily, has not, and at the late Crystal Palace Show the best then in Owl points was superior to any African. There must be much latitude allowed in the fancy. Thus it seems in Scotland Dragoons do not take, whereas in England they are a most popular class. Individually I should prefer seeing a good stud of Dragoons, such as Mr. Betsey's, to the best Carriers in the world; but I would not therefore condemn Carriers because they have never been my fancy.

Fanciers who rejoice in the English Trumpeters being killed and wish to destroy the English Owl must learn to be tolerant of other people, and not imagine that they can turn ninety-nine out of every hundred fanciers, the ninety-nine fully believing that the modern prize Jacobin is superior to any other former bird of that name in its additional and very marked points, the mane and the rose. If a minority wish to revive an old type let them offer prizes and try the experiment, as I have proposed. In some matters deviation is allowed even by Judges, as at the Crystal Palace Show the Jacobins in the first-and-cup of four pairs of Pigeons were clean-thighed and low-cut, and far the best they were in true Jacobin points. I like improvement, for where a fancy ceases to advance it must go back; a revival is also

the Jacobin, I am at a loss to know what he means. I never entered upon the colour or marking of the so-called Jacks, it was the form of the bird we were discussing, which is far more important. This is the second time "WILTSHIRE RACROX" has slipped out and talks of low cuts and clean thighs, points never raised by Mr. Weir, Mr. Hnie, nor myself. Is this from a desire to shirk the question? I have an opinion of my own on marking which I will deliver at the proper time. I think, however, as in Owls, "WILTSHIRE RACROX" have shown signs of surrender, for he admits that the hoods of the present Jacobins (so called), "do not come far enough forward," and he is quite right, and it is pleasant to find him admitting so much, and I hope it is an earnest that ere long his better taste will prevail, and that he will soon be found pulling the right way and help to raise such a storm about the hoods of the poor Jacks as will make them pull them up and wear them as they need to do before their fall. Just fancy for a little that a good fancier of the old school could be present at a meeting of Jack fanciers of the present day. How bewildered he would look when he found them talking of manes and roses, and on being enlightened how surprised and shocked he would be. "Can it be possible," he would say, "that the fancy is so fallen since my departure that blemishes are now turned into beauties, and in this age of

progress? Why, we sent such birds (for they would come in spite of us now and then), to the bird shops for anything they would bring to have them out of sight. If this is all you have to show it is a pity you disquieted me to bring me up."—Geo. Ux, Dundee.

### MAUCHLINE SHOW.

THE second annual Show was held at Mauchline in the Temperance Hall and National Schools (the entries being much larger than was expected, the former place was not sufficient for all) on Friday and Saturday last. Although but the second show, the Committee seemed to be thoroughly up to their work, and with an energetic Secretary in Mr. Wallace, the whole was well carried out; but on account of the small size of the Hall the pens were placed three tiers high, the promenades being narrow. The lowest tier was in rather a dark position, the Spanish especially showing to disadvantage, but in these classes were some grand birds, notably the cocks, which were almost uniformly good.

*Scotch Grey* cocks were very good, the first one of the best we ever saw, the other winners losing only in size. Hens were a very even lot; the first, however, was the most perfectly marked we have ever seen. In *Dorking* cocks the first was a massive Dark-Grey, the second a very good Silver-Grey cockerel, but, with the exception of feet, by far the best was the third Silver-Grey cock, which for size, colour, and shape was an extraordinary bird. In hens a Silver was first, Dark second, and Silver pullet third—a very close run. If we except the winners the *Games* were poor, *Duckwings* taking first honours in each case. The medals in the above two sections went to the Spanish and *Dorking* cocks. *Hamburgs* were a grand lot of eight classes with ninety-seven entries, the medal being won by a most perfect Silver-pencil pullet, very handsome, however, with the first-prize Silver-spangle hen. Gold-spangles in both classes were very good, the hens most particularly, but with the exception of the winners in Gold-pencils there was nothing striking. Silver-spangle cocks were good as regards the winners, the first a thoroughly spangled bird. The first in Silver-pencil cocks was far ahead of all the rest. *Brahma Pootras* in both classes were pretty good; the *Cochins*, however, much better, and the medal awarded to a capital Buff cock. Game *Bantam* cocks were not a good lot, but the first was a moderate Pile; second a Black Red, but that he was a little sickly and marked on the hackle would have been first. In hens the first was a smart Black Red, second and third Piles. In the Variety *Bantam* cocks first was a very small Black, second Black, and third Gold Sebright; and in hens the first was a Silver Sebright, most perfect in all points, and the rest Blacks. A Malay was placed first in the Variety class, Crève second, and Gold Polish third; and in hens the first-and-medal was a Gold Polish hen, second Crève, third White-crested Black. *Aylesburys*, both *Ducks* and *drakes*, were large and fine in quality, the medal going to a splendid fallow of this variety, the Rouen Duck running the above very close, far the Rouen Drakes, though good in colour, were not equal to the rest. *Geese* were a fair lot; the first White Embden, second Toulouse, and third Chinese. The Selling classes were well filled with very cheap birds. Many mistakes occurred through the very unwise system of starting each class with No. 1.

*Pigeons*, as before stated, were in the school-room. Pouters, first on the list, were pretty good, but many not in the best show. In cocks first was a good Blue, large, full of style, but a little short of marking on wing; second a grand White, but a little soiled; and third Red, good in all respects but colour, which was a little dull. Hens were—first Black, faultless if we except a suspicion of trimming on one thigh. In Carrier cocks first was a capital Dun well made up, fine in style, neck, &c.; second Black; and third Dun, rather flat-wattled. In hens a grand Blue was first, Black and Dun of fair quality winning the rest. The medal for Pouters and Carriers went to the Carrier cock. In Tumbler cocks the first was an Almond, second Agate, and third Kite; and in hens, first Black Mottles, second Red, and third Agate—a fair lot. *Fantails* in both classes were very good, especially in size and carriage. The *Jacobins* in both cases about the best classes in the Show, and the medal awarded to a very small Red hen, one of the neatest we have seen of late. In Nuns of both classes the winners were very good; in cocks were two very good Reds. Classes were provided for common Pigeons, some of which were common indeed. In the Variety class cocks the first was an Archangel, very brilliant in colour and in fine order; second a Spangled Ice, and third a Red Turbit; and in hens the first was a neat White Owl, second a Black Barb, and third Archangel. In the Selling classes there were not many birds of great value.

*Rabbits* (which are evidently not understood here) had two classes, but out of nineteen entries only the first-prize Himalayan was of any value, all the rest being common.

The *Canary* section was entirely for the Scotch fancy varieties, although there was a class for Mules, in which a Variegated Jonque was first, and a four-pointed Mealy out of the same nest second.

The prize lists were well got up in such a manner as to be of great service to both the press and visitors.

JUDGES.—*Poultry and Pigeons*: Mr. E. Hutton, Pudsey. *Cage Birds*: Mr. Wm. Kerr, Ayr.

### PIGEONS AT THE GALSTON SHOW.

*Pouter*, Black or Blue.—This was the finest class of all in the Show, the pens ran the full length of the Hall. Many of the birds were grand, and must have struck every visitor on entering. First-prize a splendid Black, fine clean limb, but deficient in markings on the crop; second, a Blue, fine limb and style, rather gay; third, a grand Blue, perfection in marking, but rather deficient in limb. Highly commended also a very fine Blue. This class was worthy of a city show. Pouters, any other colour, a smaller class, but contained some fine birds. First a Yellow cock of fine proportions and great size, deficient in marking and crop, splendid limb, but evidently very old; second, a splendid Mealy, beautifully marked, not quite up in limb; third, a fine Mealy hen, rather gay on wing. Highly commended a fine bird, but a bad shade of red. *Carrier* cock or hen.—In looking over the catalogue we were surprised to find that this fine class was all shown by local fanciers. The first-prize, a Black cock, had a peculiar fineness about him not only in style but all over. This class with one or two exceptions was a very good one. *Fantails*, a large class, for quality seldom surpassed anywhere. It contained both White and Black-saddled birds. First-prize looked like a hen, but it was perfection in every point, and also carried the special prize in this and the former class. The saddle-backed birds were very fine, one of them rather large; but a finer collection of the true "broad-tailed Shaker" we have not seen for many years. *Jacobins*, a fair class. First prize awarded to a pair of Blacks. We were not sure they were a pair, but one of them bore all the hues of the original bird, the fine tilted hood and long chain; second, Reds, a pair of fine birds with a little of what is called the "new type." This was a large and troublesome class to judge. *Turbits*, a large and fine class. There was the absence of the shell crown except in one or two birds. All colours were represented, and very fine birds shown. The first-prize pen was very good, showing all the properties, and with a little more age will be ill to beat. Many of the birds in this class were rather young to take good places. Nuns, a very good and large class, all Black excepting one pair (Reds). There was a total absence of "fancy tailoring" here, and yet the foul feathers were very few. Common *Tumblers* consisted of two classes: the first, marked birds, comprising Beards, Balbs, Mottles, &c.; the second, Self-coloured birds. All the colours were well represented, among them a pair of very beautiful Blues, barred on wing. Common *Pigeons*.—This was a strong class, and suited the rising generation and aspiring fanciers well. The first prize was awarded to a fine pair of pure Whites. Variety class consisted of many fine and pretty birds. First prize awarded to a pair (the only pair) of Short-faced Agate Tumblers; they were gems, and fitted to take honours in a city show. Selling class were most appropriately placed on the stage—a great variety of character, form, and show, from the aristocratic Pouter downwards. The Pouters were the best.

Since writing this report we are informed this Show has been an entire success. The Committee has our best wishes.

### BELGIAN CANARIES.—No. 5.

In my first chapter respecting this particular breed of birds (see Journal of June 17th, p. 491) I remarked that "Belgian Canaries are not every fancier's fancy." I still think so, for the trouble and expense attending the obtaining of real good birds are so great that many fanciers direct their attention otherwise, towards cage-birds which may be bred and reared somewhat more freely than Belgian birds. In many cases which have come under my notice I know the outlay has not been the greatest obstacle to surmount, for as much as five, six, or seven pounds, and upwards, have been expended for single birds to breed with and to exhibit. An enthusiast who will spend some eighty or a hundred pounds for the purpose of riding high his hobby-horse in the Belgian fancy (or any other fancy) may be considered to be touched somewhat with "Belgian or Canary on the brain." After such an outlay as this and where disappointments in breeding and numerous deaths have taken place, it is no wonder that some with a good purse at command, who have imagined that they were going to take Canary matters by storm, have retired sickened and disappointed, crying, "*Peccavi*." We have done wrong by laying out so much money foolishly that we intend going out of the fancy." Such instances as these are to be deplored. Before entering into the Belgian fancy it is better to gain a knowledge of the ins and outs of breeding and managing birds of an easier-going kind.

So far as the present exhibiting season has advanced, more birds of the Belgian varieties have been shown at some of the exhibitions than I at one time anticipated. Take for instance



Bath Show, where no less than a score clear and ticked Belgians were entered. At Darlington too there were 17; Norwich (second show), 23; Middlesborough, 7; Hanley, 8; Newcastle, 7; besides those exhibited at Pocklington, Northampton, Oldham, Derby, and elsewhere, amongst the numbers being many really first-class birds staged. From this I am inclined to believe that one of our choicest breeds of the Canary is looking up somewhat, notwithstanding that a few hitherto exhibitors of Belgians have during the past year or so directed their attention more towards the breeding of other kinds of birds.

As a Belgian Canary proper is considered to be a bird of "position," my wish is that it may maintain that "stand" both as regards form and quality of breed, and that the breeders (not forgetting our Belgian cousins across the water who would not wisely by reducing their prices for birds somewhat) may increase twofold—aye, tenfold if possible, for no variety of Canary shown presents so aristocratic an appearance as the often so-termed "ugly" Belgian bird.

I will here give the points of perfection for which Belgian birds are judged. As I remarked in a previous chapter, I believe there are two classes for Clear specimens (yellow and buff). When breeding with Belgian birds it not unfrequently happens that some of the offspring are slightly ticked or marked with a dark feather or so. Such are none the worse so far as true Belgian form or breeding with are concerned, but they are precluded from being exhibited with Clear birds, unless a schedule specifies for Clear and Ticked Belgians. However, the following are the points of excellence of

#### CLEAR BELGIANS.

Beak, slender and clear. Head, small and flat. Neck, long and slender. Back, long and good circle. Shoulders, high and well filled between. Wings, long, compact, and thin, lying close to the body, but not crossing each other at the tips. Chest prominent, but tapering towards the vent. Body, long and slender. Tail long and thin, with the feathers well wrapped over each other, and inclining in circle with the back. Legs, for length and erectness of stand. Feathers, closeness and richness of colour, and not coarse. Feet slender, with nails not twisted awry.

If in compiling or framing a schedule for a show it should be deemed essential to have separate classes for the Clear, and also classes for ticked or uneven-marked Belgians, then such latter birds will be judged by the same points (excepting the tick or mark) as Clear birds.

#### EVEN OR BEST MARKED BELGIANS.

A good specimen should approach in general form—"position"—as near to a Clear bird as possible, but this rarely happens. In addition to good Belgian properties they should be marked thus—Beak, slender and dark. Eye-marks (spectacle-eyed), a narrow mark around each eye tapering towards each side of the head, but neither coming to the front of the beak or on to the neck behind. If a bird should only be marked on the cap or crown and not about the eyes, and the crown mark be of a perfect oval shape, without the dark feathers reaching to the eyes, such mark to be considered of an uniform kind, and looked upon with some degree of favour by a judge. Wings, the outermost flight-feathers to be white, the inner flight-feathers dark, with the same number of dark feathers in each wing, or as near even as possible. Tail, if not clear but regularly marked with one or two dark feathers on each side, to be considered good. The under part of the bird from beak to vent to be as clear and free from dark feathers as possible. The upper surface from the marking of the crown of the head or the eye-marks to be entirely clear to the tail, the wings excepted. The legs to be dark—the darker the better—in each variety.—  
Geo. J. BARNES.

### HARVESTING HONEY—SECTIONAL SUPERS.

No. 2.

In American apiculture an average of 100 lbs. per hive is not uncommon, and an occasional return of 300 lbs. to 500 lbs. not reckoned a miracle. This statement made by one or two men I should naturally set down as Yankee "tall talk," but when confirmed by dozens of contributors to the American magazines who could have no motive to deceive each other, I feel bound to say I stand convinced.

Now comes the question, How they do it? This is how they do it: Where the greatest weight of honey is desired no supering is attempted, but dependance solely placed on the work of the extractor, which was figured last week; and so great is the value of good straight combs estimated that such are readily marketable at about 1s. 6d. per square foot. Large hives (even sometimes big enough to contain twenty or thirty combs) and strong colonies are essential, so that when the honey appears in the flowers an army of bees rally out to gather it in. As fast as the combs are begun to be sealed over they are at once emptied by the extractor and returned to the hive; the process is repeated about every three days, and the constant re-appearance of the wet combs keeps the bees in such a ferment

of excitement that the honey comes in far more plentifully than it otherwise would—more than doubling the yield. On the other hand this extracted honey does not realise more than half the price of honey in the comb. It is equally as pure, but contains more water, not having been evaporated sufficiently before extracting. This excess of water causes the honey to candy quicker than super or run honey. Although enormous quantities are raised it finds a ready market for home consumption, and brings the raisers about the same price as it is sold wholesale in England.

Fig. 100.—Mr. Harrison's super.

Now with regard to what the Americans call "box honey"—we call it "super"—there they furnish us a lesson. I have been grieved to see at our shows beautiful supers of 40 lbs. or 50 lbs. weight, priced perhaps 1s. 8d. or 1s. 6d. per lb. wholly unsaleable for two reasons—not that the price was too high, but that firstly for private persons there was too much and the difficulty of carriage too great, and secondly the wholesale dealers would not buy because there was no way of dividing the combs without cutting and bruising, to the loss of symmetry and weight.

Fig. 110.—Section of Mr. Harrison's super.

Our friends over the water have long ago seen and remedied this by the use of sectional supers. One is now before me as used by Mr. Harrison of California, who has two thousand stocks, and sends to market sixty or seventy tons of honey annually. Such a man should know what is most useful, and I will endeavour to describe his super as well as that of Mr. Isham, who gained the prize for the best super for sending honey to market in saleable form. I may here say I sent over to America etc.

Fig. 111.—Mr. Isham's super.

precisely for these supers in order to exhibit them at our late show, but they unfortunately arrived one day too late—rather

annoying, as their bare carriage cost me 18s. Fig. 109, Mr. Harrison's, is made of pine quarter inch thick, and each section (fig. 110), 1½ deep and 6½ inches high. The simplest instructions to make such a super would be to say, Make a box without a bottom of quarter-inch pine 6½ inches high, 6½ wide, and of any length you please, and cut this with a saw into sections 1½ths deep. Connect the open end of each section by nailing in a stick five-eighths square, one angle downwards. Now, having arranged the sections close together paste a strip of stiff paper along each side, which will hold all together, as shown at a, fig. 109. The ends may be wood or glass as desired. Each section should be furnished with a wax guide straight down the middle of the top bar, and if properly managed the bees will fill each section with 2 lbs. to 3 lbs. of beautiful comb readily saleable. The grocer only has to run his knife through the paper strip, and the comb separates without mess or waste. These sections could be made in quantities under 1d. each, and when filled would readily find wholesale buyers at 1s. 6d. per lb. Mr. Isham's supers (fig. 111) are much more good-looking and also more costly. The top and bottom are of wood 6½ by 2½, the four sides glass held together externally by tin angles which penetrate through top and bottom and are there clinched; internally a pin through the wood at each corner keeps the glass in place. Nicely filled with comb they must be quite tempting, and would no doubt readily draw an additional 6d. for their cost.

Many people feel disappointment at not being able to sell their honeycomb. I have pointed out some of the reasons why, and another is the too high price placed on it: 2s. and 2s. 6d. per lb. is all very well if you sell to private customers, but to such the sale is limited, and where much honey is raised wholesale buyers must be looked to as the great supporters; these of course must make a profit. Two shillings, or at the most 2s. 6d. per lb., is the maximum price retail for honey in comb in the fashionable quarters of London, and at this price the tradesman cannot afford to give more than 15d. or 16d. For run honey there is no market at the price usually asked. Foreign countries send so much of very fair quality, that until a better system of bee-culture is pursued England is shut out of the market. Narbonne honey, good-looking and fragrant, can be bought wholesale at 7d. or 8d., and while this is the case English at 1s. is not readily saleable. For honey in the comb there is no lack of buyers if produced in a saleable form at a saleable price.

I have read a good deal of American bee literature, and I have come to the conclusion that in their summers they have many advantages of us, but their winters are sometimes very fatal to bees, quite counterbalancing the summer's advantages. I do not find that generally the secretion of honey is much in excess of what we have here, but it is not wasted so much. There are, of course, exceptional localities, such as some districts of California, which are favoured by the goddess Flora, but on the whole I think England could hold its own.—JOHN HUNTER, *Eaton Rise, Ealing.*

### HONEY SEASON NEAR LINCOLN.

I HAVE been looking around at several bee-keepers, cottagers, &c., who keep bees, and I find by examining their hives that only one swarm of this season has sufficient honey stored up to keep it through the winter, and it was a swarm that took possession of a hive where the bees had died last winter. It is full of clean combs. I have seen a great many altogether; not one of them had filled a hive with comb, and all are weak in bees. Old stocks are better than swarms. I think they have a little left of what they gathered from the fruit trees in spring. From what I have heard and read this is the worst of all years of late. I fed my swarm in the summer, and in September it was 80 lbs. weight, now it is 38 lbs.

I have joined several casts to swarms, and in only one did I spread the bees on a sheet to catch the queen. I brought her home and kept her seven days in a super with half-a-dozen of my bees, and fed them with sugar. I saw them feed the queen. On the eighth morning she died.

If "B. & W." and Mr. Lowe are right, I think bee-keepers might turn the bees out from old stocks twenty days after swarming instead of twenty-one days, as recommended by Mr. Pettigrew; even a day would be a gain to the turn-outs. If all is well I shall have some to do next season and I will try one, but I have never doubted Mr. Pettigrew's word.

The swarm and a half that I joined together on the 9th of September have done well. I added another to them in the last week of September. On October 21st hive and bees weighed 25 lbs., I ceased feeding; and on November 1st and 2nd the bees brought out some young white bees, so I replaced the feeding-bottle in the top of the hive and I have not seen any since; they are a very strong lot.

Another hive I have been unfortunate with. The brood comb that I put in with a piece of string fell on to the floor-board, and most of the new comb with it. It was so heavy with honey that I expect it has covered some of the bees up. I have not been able to feed the bees from the bottom since. I have fed them

with a bottle from the top. They have built comb from the top again: it is empty. It is very light and weak in bees, not more than 9 lbs. I do not expect to keep them. Will Mr. Pettigrew say if it will be wise to keep a bottlefull of syrup on all the winter? I should not like to lose them.

The two hives have had 2½ stones of sugar at 8d. per pound. On November 20th I covered all up for the winter with hay-bands and bags, and put the hives in a bee house.

I find late-fed swarms fly about very much with the least bit of sun out or a warm day, so I keep them in with perforated zinc.—J. M.

### OUR LETTER BOX.

**PULLETS MOULTING IN DECEMBER (E. B. T.).**—The only circumstances under which we can understand a pullet having the appearance of being moulting now would be from the fact of her being early hatched and having laid, set, and reared her brood. Such cases frequently occur in Sussex among Dorkings; but we think the Brahma pullet would not suffer so much in appearance and plumage. Change of locale would throw pullets off laying for a few days; but a clean-moulted Brahma hen is sometimes difficult to detect among pullets. The head and comb in a hen have a more wrinkled, and so to speak, scaly appearance than those of a pullet. The plumage (new) has more development of quill, and is softer and more fluffy than that of a pullet.

**TEAL MOULTING PARTIALLY (E. B. N.).**—The most probable cause for the unsatisfactory moult of your male Teal is that he was a bird that had been caged some time, and consequently weak after moulting. Such a bird would only resume his perfect plumage by slow degrees.

**CORN FOR FOWLS (J. H. D.).**—All corn for them is better crushed.

### METEOROLOGICAL OBSERVATIONS.

CANNON SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.		9 A.M.					IN THE DAY.						Rain
1875.	Barom. at 3 p.m. at Sea Level.	Hygrom- eter.		Direction of Wind.	Temp. of Air at 9 A.M.	Shade Tem- perature.		Radiation Temperature.		In sun.	On grass		
		Dry.	Wet.			Max.	Min.	In sun.	On grass				
We. 1	30.284	deg.	deg.	N.N.W.	deg.	deg.	deg.	deg.	deg.	deg.	deg.	0.060	
Th. 2	30.281	50.3	78.8	N.	87.0	83.3	76.7	83.3	77.8	80.0	80.0	0.264	
Fri. 3	30.746	52.8	80.0	N.	87.0	84.8	79.4	84.3	85.4	80.0	80.0	0.264	
Sat. 4	30.751	52.3	78.0	S.W.	87.0	83.3	79.0	87.8	80.0	80.0	80.0	0.115	
Sun. 5	30.012	52.8	78.2	N.	88.2	85.6	85.6	87.4	82.1	80.0	80.0	0.722	
Mo. 6	30.097	51.5	77.6	N.E.	86.0	85.6	82.9	84.5	80.7	80.0	80.0	0.087	
Tu. 7	30.405	50.4	78.3	N.E.	86.0	86.3	78.3	85.3	81.0	80.0	80.0	0.010	
Means	30.278	50.3	78.5		86.8	85.8	78.8	84.8	80.8	80.0	80.0	0.502	

### REMARKS.

- 1st.—Fine morning but very cold, and very slight showers of sleet at times all the latter part of the day.
- 2nd.—Snow 2 inches deep had fallen before 9 A.M., and as it continued to fall more or less heavily there was an additional depth by 9 P.M. of 2½ inches, making a total of 4½ inches.
- 3rd.—Fine morning, but snowy at intervals all day; another three-quarters had fallen during the night.
- 4th.—Snowing fast all the morning; extraordinarily dark for a short time between 2 and 3 P.M.; 3 inches more of snow was measured at 9 P.M., when it was still freezing.
- 5th.—Bright and sunny nearly all day, but the snow still lying and the air frosty out of the sun.
- 6th.—Another and still heavier fall of snow during the night, 8 inches being measured at 9 A.M.; snow fell at intervals all day; the wind was rather high, but frosty.
- 7th.—The snow still frozen; and though the day kept pretty fair, snow fell. The principal feature during the past week has been snow, which in the aggregate has been nearly a foot deep, and still lies to a depth of about 4 inches.—G. J. SYMONS.

### COVENT GARDEN MARKET.—DECEMBER 7.

THE heavy fall of snow has checked both business and supply, and, as frequently happens just before Christmas, trade is at a standstill.

### FRUIT.

	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	0	0	Peaches.....	doz.	0	0	0
Chestnuts.....	bushel	12	0	0	Pears, kitchen.....	doz.	0	0	0
Figs.....	doz.	0	0	0	Pears, dessert.....	doz.	1	0	0
Filberts, Cobus.....	lb.	0	0	0	Pine Apples.....	lb.	0	0	0
Grapes, bothhouse.....	lb.	0	0	0	Strawberries.....	lb.	0	0	0
Lemons.....	100	0	12	0	Walnuts.....	100	1	0	0
Oranges.....	100	0	12	0	ditto.....	bushel	4	0	0

### VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	dozen	8	0	0	Leeks.....	bunch	6	0	0
Beans, Kidney.....	1	0	0	0	Lettuce.....	dozen	6	0	0
Beet, Red.....	dozen	1	0	0	French Cabbage.....	1	0	1	0
Broccoli.....	dozen	1	0	0	Mushrooms.....	pottle	2	0	0
Brussels Sprouts.....	dozen	1	0	0	Mustard & Cress.....	pottle	0	0	0
Cabbage.....	dozen	1	0	0	Onions.....	bushel	2	0	0
Carrots.....	bunch	4	0	0	Pickling.....	quart	0	0	0
Capitons.....	100	1	0	0	Parsley.....	doz. bunches	3	0	0
Cauliflower.....	dozen	2	0	0	Potatoes.....	bushel	2	0	0
Celery.....	dozen	1	0	0	Kidney.....	do.	0	0	0
Coleworts.....	doz. bunches	3	0	0	Radishes.....	doz. bunches	1	0	0
Cucumbers.....	each	0	0	0	Salsify.....	bundle	0	0	0
Endive.....	dozen	1	0	0	Scorzonera.....	bundle	1	0	0
Fennel.....	bunch	0	0	0	Seakale.....	basket	0	0	0
Garlic.....	lb.	0	0	0	Shallots.....	lb.	0	0	0
Herbs.....	bunch	0	0	0	Spinach.....	bushel	4	0	0
Horse-radish.....	bundle	4	0	0	Tomatoes.....	dozen	2	0	0
					Turnips.....	bunch	0	0	0

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 16-22, 1898.	Average Temperature near London.			Sun. Rise.		Sun. Set.		Moon. Rise.		Moon. Set.		Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	h.
16	Tu	Royal Society at 8.30 p.m.	46.5	38.9	38.7	3	42	40	3	23	11	23	11	19	4	1
17	W	Philip Miller died, 1771.	46.8	34.0	38.9	4	38	40	3	27	9	40	11	20	9	31
18	Th		45.8	32.7	38.7	4	38	40	3	7	11	54	11	21	8	1
19	Fri	4 SUNDAY IN ADVENT.	45.4	32.5	38.5	5	38	40	3	moon.	after.			2	8	30
20	Sa		44.1	30.6	38.9	6	38	40	3	35	9	15	0	22	9	9
21	Su	Shortest day.	44.1	34.0	38.0	6	38	41	3	35	1	35	0	24	1	32
22	Mo	Society of Arts at 8 p.m.	45.0	32.5	38.7	7	38	41	3	40	3	47	0	25	2	1

From observations taken near London during forty-three years, the average day temperature of the week is (45.0°) and the night temperature (38.0°).

## COVERING AND PROTECTION.

**AMONGST** the most important of the gardener's duties is the protection of the crops and plants which are under his care. He must protect from extreme heat in summer and extreme cold in winter; at the one season he must repel the heat, at the other invite and conserve it. The latter needs only now to be noticed. Many crops which are ordinarily considered to be hardy need some protective care during the inclement season of winter—not, perhaps, that such crops would be otherwise killed, but yet if left to the full exposure of the weather would be deprived of a great measure of their usefulness. Too often the very hardihood of a plant or crop is the chief element which leads to its destruction, or at any rate prevents it being substantially useful. Ordinarily the winter may not be sufficiently severe to kill outright such common crops as Parsley, Cabbages, Celery, Lettuces, Spinach, and autumn-sown annuals; they are considered as "hardy" crops, and are left to "take their chance." They may not be killed, but yet if unprotected may receive such injury as to render them practically useless, and the cost of their production may be wasted for the want of the little protection which might be given, but which is commonly omitted.

The crops named are very common crops, but they are very useful; they are, indeed, indispensable, for if destroyed or become so injured as to be virtually useless they cannot be replaced. I speak after a quarter of a century's experience when I say that by neglect of protective care at this period of the year of these simple "hardy" crops, that the greatest inconveniences are incurred in many gardens during the spring months. Take the matter of Parsley; it is a common crop, it is true, and not much valued when it can be cut by the barrowful, but to trudge in February five miles for a handful, as I and many others have done, teaches us to appreciate the value of even this common herb, and urges on us the necessity of affording it some protection before it is yet too late. If a portion is in square beds, as it ought to be, it is easily protected by placing over it spare lights; and if there are no lights, it is not difficult to make a few straw hurdles, which are invaluable sheltering aids which can be profitably turned to account in many gardens. If it is in single rows, as it commonly is, there is no reason why it should be lost when by the simple process of placing a board on its edge affixed by stakes driven into the ground, the board to slant over the row from the north or east side, it can be so serviceably protected. Even stakes laced with evergreens or straight straw, or, what is better, hexagon netting bowed over and similarly laced, may make all the difference between plenty and poverty of the supply of an article which often causes more unpleasantness than do crops which are usually assessed at greater value. I say therefore, while there is yet time—protect the Parsley.

Have any—but I know they have—had their August

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and September-sown Lettuces killed, and when in the bright days of April and May salads have been called for and longed for—even stormed for—there have been none to give? Then how ardently the gardener wishes he had protected, instead of which, with all the nursing and sheltering, even potting, he cannot have the spring-sown Lettuce in perfection until July. Protect, I urge, with hurdles of straw or evergreens, if nothing else better is at hand, and by a little extra work and discomfort now there will be the reward of comfort in the spring, and credit and pleasantness. I say once again—Protect the Lettuce.

**Cabbages.** If this crop is killed what have we in its stead? We have nothing that will fill its place. The Winter Greens are gone and the Cauliflowers have not come in (even if the plants were not killed), and Asparagus and Peas can never stand in the stead of Cabbages. "But we cannot insure the preservation of this crop," some may suggest. Perhaps not always, but do we do all we can? Do we plant in deep drills, as we ought to do, so that the soil is easily placed up to the hearts? Cabbages so planted are seldom killed, and if they are not so planted and advantage is taken when the ground is open to throw up a miniature bank at the cold side of each row, the plants will invariably escape destruction. I know what a northern climate is, and have been tanned with the winds off the North Sea, but I did not lose my Cabbages last winter when the thermometer was down to zero. I say therefore, Protect the Cabbages, for this is a vital crop without a substitute.

**Spinach.** This is another "ticklish" crop ever in demand, and is always worth some protective care. It is injured by wet as well as frost, and is especially tender in light rich soils. It should be grown in an exposed place on dry and not rich soil for the winter supply, and if sheltered with thatched hurdles it is generally there when it is wanted. I have had the pleasure of sending occasional dishes twenty miles as the greatest favour that I could bestow on a friend; and I know a gardener at the present time who would be glad to pay carriage for a parcel twice a week for the next ten weeks to go twice that distance. If at one time this vegetable is regarded as a weed, at another time it is very precious; and even if tolerably plentiful now, it may be unpleasantly scarce two months hence if not protected.

**Cauliflowers** I need not say much about. They are more tender than the crops previously named, and consequently have protection given them—some more than they need—and become first "drawn" and then "buttoned;" they need protection, or the crop may be lost. The same may be said of hardy annuals; with a little preparation and a very small amount of protection they are seldom or never destroyed, but if this little is not afforded them they rarely pass the winter safely. Celery also needs some protection, and we should hear less of the complaints in spring of "My Celery wo'n't keep." It "wo'n't keep" in spring if it is frozen in winter; but litter, or stubble, or evergreens will mostly make it safe. It is not commonly that these useful crops are killed by

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the first frost of winter—by that frost they are injured—but it is the long cold term succeeding which completes the ruin if shelter is not afforded to encourage their spring growth. Protection also serves another important purpose by sheltering from the sun and insuring a gradual thawing of the frozen plants or crops, a matter which is of the utmost consequence, and should never be disregarded.

It is surprising how effectual is even a little protection. There are few who have not noticed that when a few sticks—it may be a loose bundle of pea rods or a handful of thorns—have been casually left on a plot of grass or weeds during the winter that the vegetation under even that skeletonised form of shelter has in spring—say in February—perhaps grown 2 or 3 inches, and is fresh and green while the unprotected surface is totally destitute of verdancy. If a similar covering is placed over a Radish bed, or any other low crop, the effect of such trifling shelter is equally manifest, and suggests how beneficial even a little shelter may be during the season when every additional degree of heat is valuable and every degree of cold is dangerous. Asparagus tops without the seeds, pea haulms, evergreen boughs, a few leaves, and a little litter where it can be used, are all sheltering aids which are not to be despised; and those who use such aids freely, yet intelligently, are generally the most successful in providing a supply of these requirements which sustain their own credit and win their employers' satisfaction.

But there are plants of a different nature than the above which are individually more valuable, and if destroyed cannot quickly be replaced, which need protection against the excessive severity of the frost. Roses are frequently endangered, and newly-budded and choice sorts should have some protection afforded them. In protecting newly-budded Briars, or Roses that have not large heads, nothing is better, more neat and effectual, and more easily applied than to wrap a hayband round the stocks—for these are as susceptible of injury as the heads—and to envelope the heads in the old straw-bottle envelopes which have been sent from the wine merchant's. These are generally well and closely made, and will last for several years if taken care of. I have collected them for several years until quite a store has accumulated, and it is not too much to say that by their aid I have preserved hundreds of Roses from being killed; the proof being the destruction of many old sorts or plants not greatly valued which have not been covered, and which have succumbed to the intense frost, while those which have had the protection have passed through the winters in safety. When the Roses are thus encased they have a snug comfortable appearance which is not at all unsightly—in fact the utility of the coverings is so manifest that they almost appear attractive, which they certainly are to the employer for whom I have grown and protected Roses for several years. If these envelopes are not to hand from the wine cellar it is not difficult to make some after the same fashion which will answer the purpose equally well, although they may not be so artistically made. The same mode of enveloping dwarf Roses should be adopted whenever there is danger of their being destroyed by the frost; neat cones made of straight-drawn straws are not unsightly, and are effective. Air can be admitted on any side according to the weather, and to prevent—which is very important—the buds swelling into growth before their proper time.

The same mode can be adopted in protecting tender plants and Conifers on lawns. A framework of stakes arranged round each specimen, and laced with common cord as a foundation for the envelope of straw, and a few more outer cords to keep the straw in its place, is all that is needed: the protection is complete, and the cost trifling. Plants on walls, as Myrtles, Chimonanthus, Figs, Roses, &c., should have coverings of mats or straw, or both if needed; or by lack of an hour's work in this matter given at the proper time a wall bare of flowers will have to be endured, which will take, it may be, years to cover as before.

But while the work of covering is important, so also is that of uncovering. The work must be done gradually and at the proper time. There must be no forgetfulness and a sudden tearing away of the protection on finding that it has been permitted to remain too long. It must not remain too long, for that is an abuse of a practice which if properly used is not only beneficial, but in many cases and districts is absolutely necessary. The necessity of protecting plants which are liable to injury, and of sheltering simple yet important crops, is too often admitted at the wrong end of the season. That is just after the injury is done instead of just before, that I am induced

to record my practice, in the hope that it may yet be in time to serve some useful purpose.—A NORTHERN GARDENER.

#### REPORT ON ONIONS GROWN AT CHISWICK FOR TRIAL BY THE FRUIT AND VEGETABLE COMMITTEE OF THE ROYAL HORTICULTURAL SOCIETY, 1875.

THE seed for this trial was furnished by the following gentlemen—viz., Messrs. Barr & Sugden; Messrs. Carter & Co.; Messrs. Cutbush & Son; Messrs. Bessy, Belfort; Messrs. Nutting & Son; Messrs. Sutton & Sons; Messrs. Veitch and Sons; Messrs. Vilmorin & Co., Paris; Messrs. Harrison and Sons; Messrs. Stuart & Main; Messrs. Piccirillo; Messrs. Hovey & Co., Boston; Mr. Dancer, Mr. J. Perry, Mr. A. Parsons, Mr. R. Dean.

The seed was sown on March 16th in well-pulverised moderately rich soil, which had the previous season been well manured for Celery. The season was on the whole favourable for the growth of Onions, so that the trial was so far of a very satisfactory character. Altogether 155 samples were sown, representing ninety-eight different names, of which number twenty are here described as quite distinct.

The report only extends to those varieties which have been proved to be well adapted for spring sowing and early autumn or winter use, the remainder of the Tripoli and Silver-skinned sections being again submitted for trial as autumn-sown Onions.

1. **WHITE SPANISH** (*synonyms*, Banbury (Perry), Banbury Improved, Nuneham Park, Improved Nuneham Park, Reading, Improved Reading, Naseby Mammoth (Carter & Co.), Oxonian Prize (Nutting & Son), Cutbush's Al (Cutbush & Sons), Portugal, Castello's Prize (Waite, Burnell & Co.).—This variety is the one most generally cultivated. The plant is of free growth, the neck of medium size, and ripens off early and well. The bulbs are large, a fair-sized specimen measuring about 12 inches in circumference, and from 2 to 2½ inches in thickness. The shape is flattened, the base broad, flat, frequently a little hollowed and uneven, somewhat globular towards the stalk in the best forms. Skin pale straw, falling off readily and exposing the pale greenish-yellow outer flesh. The flesh itself is firm and solid, almost white, and of excellent quality. This variety keeps generally in good condition up to the month of March. The Banbury and Nuneham Park types were the most approved.

2. **LARGE STRAW-COLOURED** (Vilmorin) (*syn.*, Yellow Flat (Hovey & Co.)).—This is only to be distinguished from the White Spanish by the darker colouring of the outer skins.

\* **Yellow Leucure** (Vilmorin), **Yellow Cambrai** (Vilmorin).—These were considered very spurious stocks of the Large Straw-coloured.

3. **WHITE GLOBE**.—Plant of free growth, forming in general a small neck; ripens off early and well. The bulbs are of medium size, from 9 to 10 inches in circumference, and about 2½ inches in depth. The shape is somewhat globular or obovate, with a finely rounded high crown. The skin is pale straw like the White Spanish, and it is, indeed, similar to that variety in every other respect but its more globular form. It is an excellent keeping sort, and much esteemed.

**White Intermediate**, **Oscar** (Cutbush & Sons).—These are mixed and indifferent stocks of White Globe and White Spanish.

4. **TANNONS** (Vilmorin et Cie., Stuart & Main).—Plant of free growth but somewhat tender, succeeding best in a warm season. Neck somewhat gross. The bulbs are of very large size—about 13 inches in circumference, and from 8 to 8½ inches in depth. The shape is obovate, the base somewhat broad and flat, whilst the top tapers more to the stalk or neck. The skin is pale straw, and peels off readily like the White Spanish. The flesh is pale and rather soft and flabby, but of mild and excellent quality. This is a very large and handsome Onion for early autumn use. It does not keep well, and generally begins to shoot before Christmas. It bears a close resemblance to the Imported Spanish Onions.

5. **YELLOW DANVERS** (Hovey & Co., Vilmorin et Cie., Carter and Co.) (*syn.*, Danvers Yellow).—This is a very fine and distinct Onion. The plant is of free growth, the top slender, of a rather pale green colour, and with a very fine slender neck, so that it ripens off well. The bulbs are of medium but very even and regular size, from 10 to 11 inches in circumference, and about 2½ inches in depth. The shape is roundish globular, very regular, with a small base and a small neck. The skin is of a dark straw colour, the outer coating peeling off freely but

not exposing the flesh. The inner coating remaining firm, giving the Onion a very neat, clean appearance. The flesh is very firm and solid throughout, and of fine quality. A splendid keeping variety.

**New German** (Veitch & Sons).—This bears a close resemblance to Danvers Yellow, but scarcely appears to keep so well.

**6. BROWN GLOBE** [*syn.*, James's Keeping].—This is of the same character as the White Globe, but having darker or reddish brown skins; some are pale-fleshed throughout; others, these being the darker-skinned, have a slight shading of red as an outside coating of the various layers as in the Red varieties. It is an excellent keeping variety and much esteemed. The James's Keeping of some is more flattened near the crown, forming a sort of shoulder to the stalk, and of others again it is similar to the Pear-shaped.

**Magnum Bonum** (A. Parsons) is a very fine selection of the Brown Globe.

**Brown Intermediate. Bedfordshire Champion**.—These are mixed stocks of Brown and White Globe.

**7. PEAN-SHAPED** [*syn.*, Pyriforme].—This is allied to the Globe section, and may be described as an elongated form of that variety. The plant is of free growth, the great majority producing very thick necks with very little bulb, so that they do not ripen off well. The true form is like that of a long Pear tapering mostly towards the stalk from 7 to 8 inches in circumference, and from 4 to 5 inches in depth or height. The skin is of a dark reddish brown, and falls off readily. The flesh is moderately firm and solid, but it is not a very good keeping sort, and its shape does not recommend it. A good selection of this is sometimes sent out as James's Keeping.

**8. DEPTFORD** [*syns.*, Brown Spanish, Improved Brown Spanish, Strasburgh, Strasburgh Dutch, Pale Red Niorste, Light Red Strasburgh].—Plant of free growth and very hardy, forming a small neck and ripening early. The bulbs are of medium size, flattened or oblate, of pretty even and regular form. The skin is of a dark reddish-brown colour. The flesh firm, solid, tinged with red. An excellent keeping variety.

**9. FRENCH STRASBURG** [*syn.*, Pale Red St. Brisux].—This is distinct from the Deptford or English Strasburg. The bulbs are smaller, of very uneven shape, and frequently split open into several crowns. They are of a dull reddish colour. Altogether very inferior varieties of the Deptford class.

**10. DEEP BLOOD RED**.—Plant of free and hardy growth. Bulbs of medium or rather small size, flattened or oblate, and generally of very even and regular form. The outer skin is of a dull red colour; the inner coating of a deep glossy red. The flesh itself is pure white, it being only the outside coating of the various layers that are coloured, and these become paler towards the centre. It is very firm and solid throughout. This is the strongest-flavoured Onion, and the latest keeper. On these accounts it is a valued variety.

**Blood Red**.—This is simply a paler-skinned variety of the preceding, and the most common.

**11. WETHERSFIELD RED** (Hovey & Co., Carter & Co., Benary and Son) [*syn.*, Bright Red Mexieres (Vilmorin)].—Plant of free and robust growth. The neck small, ripens off freely. Bulbs large, flattened or oblate, very even and regularly formed, about 12 inches in circumference and 2 inches in depth. The outer skin is of a light dull red colour, and peels off freely; the inner coating being light purplish, shading greatly from the crown to the base, where it is very pale. The flesh is pure white, the outer surface of the coating only being coloured. It is very firm, solid, and of mild and excellent quality, and keeps well. A remarkably fine and handsome Onion from America. The finest type of Red Onion.

**12. EARLY RED** (Hovey & Co.).—This is a rather early red variety. The bulbs are of medium size, flat, of a very dull red colour. The flesh is firm and solid, and of good quality. It showed a tendency to the production of several crowns, which burst and spoil the bulbs, and prevent them keeping.

**13. TWO-BLADED**.—This name is given to denote its peculiarity of only producing two blades or leaves. These form small bulbs very early in the season, and soon ripen off. A great majority, however, grow into larger bulbs, and these have the ordinary number of leaves. The true two-leaved type has small roundish bulbs about an inch in diameter. The skin is of a dull-yellowish brown colour; the flesh greenish white and frequently a little coloured. They are very firm and solid, and keep well. The small size makes it useful for pickling purposes.

**14. TENNESSEE** (Benary & Son).—This greatly resembled in appearance the smaller types of the Two-bladed.

**15. SILVER-SKIN** (Nutting & Son) [*syns.*, Silver-skin Pickling (Veitch), Early White Silver-skinned (Benary & Son), White Round Early Hard Dutch (Vilmorin et al.)].—The bulbs are of medium size, roundish oblate; a great many are apt to split open. The outer skin is pure white or silvery, peeling off freely and exposing the next coating, which is white with green veinings. The flesh is pure white, exceedingly firm and solid. Keeps remarkably well, and is useful to those who prefer very white Onions. This is quite distinct from the Paris Silver-skin, which does not keep well.

**16. QUEEN** [*syns.*, New Queen, Piccirillo's New Queen].—This is a very small and very early variety of the Silver-skinned section. It forms bulbs almost as quickly as a Radish, and has rarely more than two or three leaves. They were fully grown last season by the 1st of June, about fifteen days earlier than the White Italian Tripoli, which variety in the late trial it most nearly resembled. Many large and later-growing examples were observed in each sample, which, if the seed was not mixed, implies a tendency to deterioration. In this, as in other respects, it exactly resembles the Nocera as introduced from Italy about thirty years ago, and the Florence White of earlier date.

**N.B.**—All the section of Silver-skinned Onions, including the Queen, White Italian Tripoli, Marzajola, Nocera, Paris Silver-skin, Early White Naples, and White Lisbon, also the Giant Tripoli section, including the Giant Rocca, Red Sallow, Madeira, &c., which are found valueless as spring-sown varieties, will form the subject of a separate report when their respective merits have been tested as autumn or winter-sown Onions.

**17. POTATO ONION** [*syn.*, Underground Onion].—This is not propagated by seeds. The small bulbs are planted in the ground like Shallots, and around these a number of new bulbs are produced. These bulbs are of average size, of somewhat irregular shape. The skin reddish brown, hanging very loosely. The flesh is tolerably firm and solid, and of fair quality. It does not keep well, but is useful for procuring an early supply of Onions.

**18. EGYPTIAN** [*syns.*, Egyptian Bulbiferous, Tree Onion, Garden Rocamboles].—This variety when planted throws up a stem on which, instead of flowers, small bulbs are produced of above the size of small marbles, which are very excellent for pickling. It is propagated by planting these bulbules (the largest of which will bear bulbs the same season), or by the bulbs which are formed in the ground, and which have not formed stems.

**19. AMERICAN PERENNIAL TREE, or TOP ONION** (Carter & Co.).—This produces small bulbules in the same manner as the Egyptian Bulbiferous, but of a much smaller and inferior character. No bulbs are formed in the ground. The plant is perennial; the roots are long and fibrous.

**20. WELSH**.—Of this there are two varieties, the Red and the Green. The plant is an herbaceous perennial, and forms no bulbs; the roots are long and fibrous. The green tops or leaves only are used. It may be propagated by seed or by division of the roots.—A. F. BARRON.

## GREENHOUSE HEATING FROM A KITCHEN BOILER.

SOME weeks since it was attempted to be shown in our Journal that greenhouse heating from kitchen boilers is impracticable, if not positively dangerous. Having had an apparatus working perfectly for eighteen months I will endeavour to describe it for the information of your readers, and recommend it as being an economical arrangement.

In a yard next an underground kitchen is a Fern stove; in the opposite corner, distant 80 feet, is a bath room, both of which are heated by hot water without any extra cost or labour. From the top of the boiler which is fixed in the back of the kitchen fireplace, but with a flue under and up behind, a 2-inch metal pipe is carried to the stove, round which the water circulates in a double coil of 4-inch pipes, thence across the yard in 2-inch, round the bath room in 4-inch, recrosses the yard in 2-inch direct to the boiler, which it enters about a foot from the top. A leaden pipe leads from the boiler to the bath; from this pipe a short branch supplies the wash-basin.

The cold water is supplied by a 1-inch pipe from the w.c. cistern above the bath room; into this cistern a blow-off pipe

from the boiler discharges the waste and steam. With this arrangement an explosion is impossible. The cold-water feed-pipe, being conducted inside my dwelling house, it cannot freeze; and the reserve water in the cistern is a sufficient supply for several days should the water company's supply fail.—  
W. J. TAYLOR, *Rye Hill, Newcastle-on-Tyne.*

## ROYAL HORTICULTURAL SOCIETY.

DECEMBER 9TH.

A SPECIAL General Meeting of the Royal Horticultural Society was held last Thursday afternoon in the Council Room, South Kensington, under the presidency of Lord Aberdare, "for the purpose of explaining the scheme of the Council, and of giving the Fellows an opportunity of stating their opinion on its details." The importance of the meeting can be estimated by the fact that the following notice was attached to the advertisement calling the meeting:—"The President trusts that it will be convenient for Fellows to attend, as the subject to be discussed is of the utmost importance to the interests of the Society." In response to that invitation there was a large gathering of the Fellows, several ladies being present; and it may be stated that in the conduct of the proceedings by those who took part in them there was an almost entire absence of that bitterness of feeling and expression of jealousy which for the last few years has characterized the meetings of the Society. At the Council Board the President was supported by the Hon. and Rev. J. T. Boscawen, Admiral Hornby, Mr. Grote, Mr. Little, Mr. W. Haughton, Dr. Denny, Mr. Warner, Mr. Camplon, Mr. Henry Webb (Treasurer), and Dr. Hogg (Secretary). Amongst the general body of the Fellows were the Earl of Strathmore, Viscount Cardwell, Viscount Bury, Lord Alfred Churcill, Sir Peter Pole, Sir Alfred Blad, General Scott, Dr. Pinches, Mr. Eiggins, Mr. Guedalla, Mr. Bowen, Mr. Shepherd, Mr. Steward, Col. Trevor Clarke, Mr. Bateman, Mr. W. H. Jacob, Mr. Knill, Mr. Caird, Mr. Godson, sen., Mr. Godson, jun., &c.

The ASSISTANT SECRETARY having read the advertisement convening the meeting, the noble

PRESIDENT rose and said:—Ladies and Gentlemen, it is almost a necessary consequence of the last general meeting, held on the 19th of August, that this meeting should be called. On the occasion I refer to you were informed that an arrangement, which I think I may call a satisfactory one, was being made with the Commissioners of the Exhibition of 1881, and with respect to which the Commissioners showed considerable spirit, and it was submitted for your acceptance. It was, I believe, all but unanimously accepted, and then it became the duty of the Council to give effect to it. I will not trouble you by going over again the familiar ground of the arrangements and the negotiations with the Commissioners, I will assume you are acquainted with them; but there is one of them of the very highest interest, and on which the Council felt there was needed immediate attention, and that was the condition of raising the income of the Society to £10,000 a-year. That was agreed upon in order to maintain the effectiveness of the gardens, because unless you sow you cannot reap [hear, hear], and so unless you keep the gardens in a good condition it is impossible to expect that you will have numerous subscribers [hear, hear]. I have no doubt you have by you the annual financial statement, and you will see by it that a larger sum than £10,000 has been received, but it was received from exhibitions, which we could not take into consideration. What I am really dealing with now is the item of subscriptions, and this is a matter which causes us great anxiety, and in a short statement I will show you the necessity for taking strong measures—very decisive measures, to arrange this matter with the Commissioners. The receipts from annual subscriptions in 1873 were £8194, and the subscribers were composed of 870 old and 524 new subscribers; but the number fell in 1874 to 725, leaving a deficit of a considerable number on the year. In the meantime the exhibitions largely increased the income, and I will just state to you that while in 1867 the receipts were £1402, in 1874 they were £698, and last year £805. Now last year was, unfortunately, an exceptional one in two respects: The shows were remarkably good, but the days on which the principal shows fell were exceptionally rainy, and the receipts of the Society show how much the success of the shows depends upon the weather. Still I am told that in this Society, from constant change of management, there has arisen a want of confidence and a withdrawal of many of the exhibitors, and the consequence of this has been that the Society has lost its old reputation, and it possibly will take some time before the old confidence can be restored. The Council, then, having this state of things before them, and having also before them the necessity of providing within three years an increase in the income of the Society of £3500, it became the consideration of the Council by what means this could be done. I am unable to speak myself with any absolute confidence, or rather authority, upon many matters in connection with the affairs of the Society, because almost the only recommendation I possess

is that I have never mixed myself up with the disputes which have unfortunately taken place in the Society [hear, hear, and laughter]. I have paid my subscriptions steadily, and I have given my allegiance to the "powers that be," but without entering into the nature of the differences existing between them and the Fellows of the Society. Coming, therefore, upon the Council without being prepared with any previous opinion on these subjects, I have been enabled to listen to and benefit by the experience of those who were upon the Council, and I found it is almost their unanimous opinion that in many cases the reason why the receipts of the Society did not increase in proportion to the increasing love of horticulture and the increase of population in this neighbourhood, that in point of fact the great cause was—the main cause was—the great abuse of the power of transferring tickets [loud cries of "hear," and a voice "no"]. No doubt that was a valuable privilege, and one which the holders of these tickets greatly valued; but I think you will agree with me that when they were made the means of enabling householders and their families to dispense with getting, as they ought to have got, their annual tickets for the gardens, I am sure the experience of many of you will tell you there are many families who enjoy as fully as they can the advantages of the gardens who never contribute a single sixpence towards their maintenance [cheers]. It was necessary this abuse should be stopped [hear, hear], and you know it is very difficult to prevent or to stop an abuse without causing inconvenience. The Council were well aware that if they attempted to stop this abuse they would cause dissatisfaction, and I frankly admit that the Council felt that unless the Fellows made certain sacrifices of their privileges we could not secure united action in the Society, and more than that, that we could not improve the financial position of the Society. And so we have now come to you to make this statement, and we hope you are prepared to make these sacrifices in order to prevent the loss of these beautiful gardens. You see that I attach the utmost importance to the results of the present meeting. If you come to any weak resolution this day—if the Council do not receive the support of this meeting, not necessarily binding them to all the details of this scheme, I think we may say the days of the Royal Horticultural Society, so far as South Kensington is concerned, are numbered ["no" and "hear"]. Now you have before you a scheme prepared by the Council, which I am sure all of you have read and studied [published in No. 793 of this Journal, Nov. 4th, page 400]. I have read a great number of letters, nearly all of them giving a fair, candid, and temperate view of the matter. Some are critical, but not a very inconsiderable number have approved of the scheme. Others criticize it, and they are the majority; and in some cases we have had suggested the substitution of other schemes of the writers. Now, I believe with the Council that they are right in putting forward to you what they think is right, and that it would be wrong if they did not give you the opportunity of expressing your opinions, and enable you to form a fair judgment as regards what the object is, whether the scheme of the Council or those proposed by any Fellows among you ought to be accepted. Should there be a very distinct opinion of the majority of the Fellows on the subject I am prepared to say, as far as the Council are concerned, they will give to their representations the fullest and fairest consideration [cheers]. What we want to do is to take the necessary measures, which we believe we cannot do without, and whether they should go to the extent which we propose it is for you to judge. I should not say we would not accept any amendment you may consider necessary, but having carefully considered the subject you must be prepared to say what you will do. The strongest objections to this scheme have come from those who are compounders. I cannot see on what grounds their opinions rest so far as regards the period since 1865. I cannot see, with respect to those who compounded with a knowledge of the bye-laws, what legal right they have to complain of any action which had become a necessity. But whether they have a legal right or not, or a moral right, I think when men have purchased certain privileges and advantages, and paid a sum down for them, they should be the last men to do anything unfair or harsh without the strongest reason. We also say, in considering their case, it would be the bounden duty of the Council to listen to anything which might relieve the compounders of their disabilities, and we are prepared hereafter to inflict upon them nothing that can be shown not to be actually necessary [hear, hear]. But when I tell you the number of those who have compounded is very nearly half of the subscribers you will see the difficulty which makes it altogether impossible to accept the life-compounders without great loss. The number of life-compounders is 525, and the number of annual subscribers is 1184. If the life-compounders are to be left in full possession of their rights it will be impossible to get the residents in the neighbourhood to become annual subscribers. In that case we shall not be able to raise the necessary funds, and the result will be that in the attempt to save everything we must necessarily lose. We therefore call upon them to take a part in the sacrifices which must be made, and if they think we call upon them to do too much, let them



make their suggestions. I entreat them not to stand upon their moral rights, but to come forward in the general good and tell us what sacrifice they are prepared to make [hear, hear, and applause]. Of course in any measures we take will be included a house-to-house visitation [hear, hear], in a strong attempt to make all those who use the gardens to subscribe to them, and it may be hereafter possible—and it will be a great pleasure to the Council if it is so—to restore some of the privileges we call upon you to give up [hear, hear]. It is impossible to disguise that one of the many difficulties which have encumbered our action is a divided counsel amongst the Fellows [hear, hear]. We know such a thing has existed, and that there does exist considerable jealousy between the local subscribers and those who are specially connected with scientific horticulture. I do hope they will proceed in this matter without any such feeling, because if they do not it will bring about the coming disaster. On an occasion of this sort which I feel is, as far as the interests of this Society are concerned, a solemn one, I think it my duty to tell you under what circumstances the Royal Horticultural Society was invested with the management of the gardens. The spokesman of the Royal Horticultural Society was Dr. Lindley, one of the most eminent botanists this country has produced—one of the men who most had, of all others, the interest of science at heart, and one of those who would not degrade the study of science; and let me read you the opinions he expressed at the opening of the Horticultural Society. Dr. Lindley said—"We, the Council of the Royal Horticultural Society, venture to congratulate your Royal Highness upon the important stage at which we have now arrived, in which you take so active an interest—an undertaking for the establishment at the west end of this metropolis of a noble garden by which, with the aid of Chiswick, not only the science of horticulture will be promoted, but an additional means of enjoyment and recreation afforded to the dense population of the neighbourhood."

A FELLOW.—What is the date of that?

THE PRESIDENT.—It was in 1861, on the occasion of these gardens being handed over to the Horticultural Society. You see Dr. Lindley was not without taking into account the enjoyment and recreation of the members of the dense population around these gardens [hear, hear]. I know many of you look with a longing look to Chiswick Gardens [cries of "hear"]. Well, "Distance lends enchantment to the view" [laughter]. Those were considered as the good halcyon days when those who promoted the study of horticulture wished to do so without the influence and chatter which they now have to cope with ["hear, hear," from a Fellow]. The cheer of the honourable gentleman is a confirmation of what I say as to what their views were [hear, hear]. Well, we had to struggle with difficulties not greater than these which may be overcome, but really there is little strength in the suggestion that our connection with South Kensington is an unfortunate one. In 1804 the Society was formed, and in 1809 it received its charter. In 1890 it got into such difficulties that a committee was appointed to inquire into the question of its management, and the committee reported that then there existed a debt to the extent of £20,848. Fortunately, two years afterwards the plan of annual exhibitions was started. At first it was but a small success, but afterwards it became a great one. Between 1832 and 1841, assisted by the use of the Duke of Devonshire's gardens [hear, hear], the Society was able to pay off some of what it owed. In 1855 they were again oppressed with the amount of their debt, and in 1856 so hopeless was the condition of the Horticultural Society that the abandonment of Chiswick was considered and actually proposed. In 1858, in spite of several vigorous efforts made to pay off the debt, it had increased very largely, and the Society was put to the resource of putting up their magnificent library to auction, and it brought some £900. In 1861 a proposal was made to the Society to take charge of these gardens. The number of Fellows rose from 958 at that time to 8360 in 1864 [cheers], and they were enabled to pay off the sum of £10,000 with which they were encumbered. I think, therefore, it cannot be shown that the connection with South Kensington was, in a financial point, a disastrous one, and I decline altogether to believe that when something has been done to create a love of horticulture it is inevitable that something should occur not pleasing to the lovers of the science. The great desire of the late Prince Consort was not only to popularise the love of horticulture by the establishment of beautiful gardens in the metropolis, but, as he himself said, to connect it with architecture, sculpture, and painting [hear, hear]. To some extent his desire has been realised. The Commissioners of 1851 have spent no less than £63,000 in the architectural adornment of the gardens, with a taste and beauty acknowledged everywhere. In the neighbourhood are rising structures to contain portions of the collections in the British Museum. Indeed, the best—the very best specimens of European art are to be found in the South Kensington Museum, so that the local and excellent plans of the Prince Consort to establish a local place for arts and science have not altogether been disappointed [applause]. I do trust the measures taken to-day will secure the success of that scheme; and

in order that we may act unitedly we will listen to whatever objections may be urged against our scheme with attention, and incorporate whatever amendments or suggestions that may be found not wholly inconsistent with them, and in saying that the Council feel assured they will receive the friendly support of those who do us the honour of attending on this day [prolonged cheers].

Dr. PINCHES said the Fellows must congratulate the noble Chairman on his statement respecting the past history and present position of the Society. He wished, however, he could congratulate the Fellows upon the fact that they had fallen upon the philosopher's stone. They wanted to find some method to raise their income from £7600 to £10,000 per annum, and only on this condition that they should enjoy the privileges they possessed for many years past [hear, hear]. He thought the object they had in view was not restricted to this or that group of Fellows, but one in which all the Fellows were equally interested—he meant the prosperity and continuance of the Royal Horticultural Society [hear, hear]; and if they differed in their views as to the best way of effecting their common object, he hoped they should do so in the same courteous friendly spirit which the noble Chairman had maintained [cheers]. Speaking for himself he (Dr. Pinches) might say he had had no conversation with any of the officials of the Society, or with any of the Fellows of the Society except one, on the matter before them as to the new conditions or privileges, and in the remarks he was making was speaking for himself only. He must say when he read the instructions which he received, and saw it stated that the reason why their subscriptions were so much reduced was on account of the system of transfer, he did expect some other solution of the difficulty than that proposed [hear, hear]. The question, no doubt, was full of difficulty, and it was no wonder the Council had not hit upon the happiest method of raising the fortunes of the Society. He thought they had not done so [hear, hear]. It would have been better if the Council had called a meeting and said to the Fellows, "These are the changes we propose, and we ask you to sanction them" [hear, hear]. It would have been better for them to do that than to issue a printed paper which they were practically compelled to withdraw ["no" and "hear"]. He thought the sacrifices the Fellows were called upon to make were too great—much greater indeed than was necessary, and which, even if conceded, would fail to accomplish the object they all had at heart [applause]. Now, he should give to the meeting a comparison of the privileges the Fellows did enjoy at present and those they should enjoy under the proposed regulations. A four-guinea Fellow—and he was sorry to hear that class of Fellows only numbered 1100—had now two tickets, both of which were transferable, and the two together enabled him to bring four other persons, so that he had admission for six persons on all occasions except those of flower shows. In addition to that he had the privilege of giving away forty tickets of admission in the year—a privilege which, estimated by the number of tickets, is not much used. He was quite willing to concede that these tickets should no longer be issued [hear, hear]. But what were they offered in place of them? They were offered one ticket for their four guineas which was not transferable, personal admission being only granted. But they might have two more tickets, and put on them the names of the persons to use them, so that they would have three admissions instead of six, and only one of the three could be transferable under any circumstances whatever.

A FELLOW.—No, no.

Dr. PINCHES.—If I am wrong, please correct me. That, as he understood it, was the existing state of things. Furthermore, if a gentleman was a four-guinea Fellow there were certain days—"reserved days"—on which positively he could not bring in either of his nominees or his own wife.

Sir ALFRED SLADE.—Hear, hear.

Dr. PINCHES felt sure the Council had never contemplated that. If a man wanted to enjoy his privileges he must pay eight guineas a year. There was a mysterious allusion to "reserved days" in the document issued by the Council. He did not know what those days meant, but he should say it would be a very difficult matter for the Council to shut the gardens in the face of the Fellows by any regulations on which they might agree [hear, hear]. He might be wrong, and no doubt if he was the legal adviser of the Society would correct him. Then they were to have the privilege of having a book of tickets—twenty tickets for a guinea. That was the only feature in the new propositions worthy the serious consideration of the Fellows [oh!]. He thought it should be made a condition that on Saturdays the gardens should be kept as a promenade for the Fellows. It seemed to him that if, with all the attractions they had been enabled to offer the Fellows in past years—including tickets for the International Exhibitions—they had failed to attract to them a large number of Fellows and so raise the income of the Society, it was only a natural consequence that if they abridged the privileges of the Fellows they must abridge the number of those who would go to the gardens [cheers]. The thing was palpable and required no further

consideration [hear and no]. He was not surprised to hear, although he much regretted it, that a considerable number of Fellows had stated their intention to withdraw from the Society if those propositions were gone on with. He should be glad to hear from any member of the Council what it was they held out to those who were likely to become Fellows. If they failed to attract them when they offered admission for six, what would be the result when they only gave them admissions for three? [hear, hear.] He should like to arrive at a practical issue on this question, but would not embarrass the Council by any attempt to move a resolution or amendment to the propositions. He should, however, call attention to one or two points in the old rules and in the new ones, and possibly the suggestions he would make might be adopted. He was very reluctant to embarrass the Executive of the Society, and he would just suggest that this might be done—to retain Rule 1 of the old rules and that in Rules 2 and 17—

Mr. GOSLOW, sen.—I rise to order. If you don't move a resolution you have no right to speak ["oh, oh"].

Dr. PINCHES.—I have no objection to move a resolution to put myself in form.

The PRESIDENT.—Surely any observations upon this matter in which we are all so interested can be made without moving a resolution [cheers].

Dr. PINCHES said if it were necessary he could easily move a resolution. He would suggest that the privilege be retained [cries of "Read"]. Well, it entitled the Fellow to two transferable tickets, and gave admission both to Chiswick and South Kensington. Then in Rule 2, which gave the right of admitting two friends on any day in the week, he thought they might substitute "one" for "two" [hear, hear], to show they were anxious to help the Council out of a difficulty. He suggested that in Rule 17 the word "two," which affected two-guinea Fellows, should be taken out, and the word "one" let in. He should propose that in the new propositions privileges 3 and 5 be adopted—that was as regarded purchasing tickets for households; and the rule respecting the restriction upon Fellows bringing in their wives any time be amended. No. 6, to admit by personal introduction, should be abandoned; and he further suggested that it might be possible in future to charge all new Fellows five guineas for what they called the double ticket and three guineas for the single ticket. These were the suggestions which occurred to him, and he should not trespass further on the time of the meeting. He should move a resolution towards the close of the meeting.

Lord BURY said he did not propose, in discussing this matter, to enter into any such details as those referred to by the last speaker. No doubt the last speaker was quite right in his examination of this scheme. First, he (Lord Bury) asked to be permitted to congratulate the Society that his successor in the presidential chair was a gentleman so highly respected and so competent to deal with the complicated affairs of the Society as his lordship [cheers]. They were all extremely fortunate in securing the services of his lordship, and he must say that having a vivid recollection of the very hard work that has to be done as President, they had reason to think themselves lucky in the selection of President which had been made [applause]. In his lordship's opening speech he did not exactly tell the meeting what he wished them to do. His lordship said he only invited discussion on the scheme of the Council, and that the Council intended to be influenced by the decision the meeting would arrive at. He (Lord Bury) wished now to tender his services to his noble friend and the Council in carrying out any scheme which might be decided on; and in order to do that with effect the best way was to criticise frankly, and not with any opposition or hostility, the scheme submitted to them [hear, hear]. The scheme emanated from a Council which turned out the Council of which he (Lord Bury) was President.

The PRESIDENT.—No.

Several FELLOWS.—Oh, yes.

Lord BURY went on to say he should not make any observation which would impart any unpleasant character to their proceedings; but he dared say he should have been in the presidential chair if the Society did not wish to dispense with his services, and the reason why the old Council was displaced by the present one was that the element which his friend Lord Abderast called the "scientific horticultural" element was in the persons of the late Council somewhat disregarded. Now they had the gardeners in the ascendant. They had produced their scheme, and it seemed to him the only point on which they were at all agreed was that the income of the Society was unsatisfactory [hear, hear]. Now the scheme was before them as to the manner in which that state of things was to be remedied. And what did it all amount to? Why, that the privileges hereafter enjoyed by the Fellows were to be very materially curtailed. As they could not offer sufficient attractions in the gardens in the old days when the Fellows had many privileges, he did not see how they could raise the income by diminishing the attractions [hear, hear].

The PRESIDENT.—Lord Bury ought to remember he is repeat-

ing the arguments of the last speaker [hear, hear]. We have no such wild scheme in our minds as that of saving the Society by reducing the privileges of the Fellows. What we want is to prevent an abuse [cheers]. I am, at the same time, quite sure that Lord Bury will grapple manfully with the scheme, and in doing so will not remember former disputes.

Lord BURY was perfectly willing to accept the courtesy of his noble friend, but he would not exactly admit the charge of abuse of privileges by the old Fellows. His noble friend in the chair appeared to think he would be able by the scheme of the Council to bring a large number of new subscribers, and in so thinking he (Lord Bury) deferred to his noble friend, but he did not think the scheme submitted by the Council was one which would find general favour throughout the Society [hear, hear]. His noble friend referred to the first origin of the Society. It appeared there were at first some nine hundred Fellows, and that in two or three years the number raised to 8500. What did that prove? Why, that the attractions of the gardens brought the Fellows, and that they were still in possession of these gardens, and that it was the possession of these gardens which enabled the Society to pay their way. The Council of which he (Lord Bury) was a member submitted a scheme to the Society which, if accepted, would have enabled them to go on perfectly well—that was, that the Society should revert to their original possessions before they came to South Kensington. He thought if the Society went back to Chiswick very much better work would be done for horticulture. It would not hamper the Council, and would allow the local Fellows to make such terms as they could with the Commissioners. It would keep these gardens open as one of the lungs of the metropolis, and bring a large accession of horticultural Fellows. People joined this Society in order to be in possession of those magnificent gardens, to have a breath of fresh air, and keep the place open as one of the lungs of the metropolis, and that was what he said, if not hampered in the future, the horticultural element would still be able to do. He thought horticulture would be the better if the Society had adopted the plan which had been proposed, and if they did so they would not—that is, his friends and himself, be in a minority, and the scheme would be amply sufficient to carry the Society on. He distinctly said that even if it was found impossible for the Society to keep these gardens, it would still be impossible for the Commissioners to build over this open space [hear, hear]. He asserted that it would still be kept as an open space even if the Society went to the dogs [hear and laughter]. Why, he asked, should the Society be told that if they did not agree to the plan of the Council the Society would be swamped? Why, what could happen if even that occurred? Why, even if the Society was swamped it would be no worse than it was at the present time [hear, hear]. With respect to the differences of the Society, he and the other members had kept an absolute neutrality [hear, hear]. His friends and his supporters thought, and he believed they would always think, that by the propositions of the Fellows they were hardly dealt with [hear, hear]. The local Fellows, he thought, were hardly dealt with. What he stated distinctly and unreservedly was that the gardens of South Kensington could not and would not, being one of the lungs of the metropolis, be closed to its people [cheers]. In fine, his comments amounted to this, and to this only, that he thought if the proposals of the Council were carried out they would bring upon the Society a worse position than it occupied before [hear and cheers]. In conclusion, Lord Bury expressed his opinion that his noble friend in the chair had really the interest of the Society at heart, and said he felt certain that his noble friend would not be a party to any scheme which he did not think was calculated to promote the interests of horticulture and of the Society which took its name from that of the science [cheers]. At any rate, by the aid of the local Fellows the Society would not have the slightest difficulty in keeping the gardens as being one of the lungs of the metropolis [cheers]. He thought that if the propositions of the Council were carried out they would place the Society in a worse position than that in which it at present stood [cries of "no"]. In conclusion, Lord Bury entreated the Fellows to revert to the proposals put forward by the Council of which he had been the last president [cheers].

Sir PETER POLK said, amid a good deal of laughter, My Lord, four subscribers told me that if these propositions are carried by the meeting they will have their names scratched out of the books of the Society [great laughter].

The PRESIDENT.—Have you anything else to say on the part of these four subscribers?

Sir PETER POLK.—No, my Lord; that is my only objection [laughter].

The PRESIDENT.—It is one I am certain the Council and the meeting will take into very serious account [great laughter]. What we really have to do to-day you all know is a most serious business. The fate of the Horticultural Society hangs upon it, and I am certain that there is not a gentleman in this room who has not at heart the real welfare, the renewed and permanent prosperity, of the Royal Horticultural Society [cheers].

Mr. GUEDELLA said he wished to observe that the increase of subscribers could be only brought about by increased attractions [loud cries of "hear"]. The great success of the Chiswick Gardens was brought by the splendid breakfasts [great laughter]. Oh, yes, he repeated that it was the breakfasts made the whole thing a success [renewed laughter]. Well, if gentlemen laughed he should like to ask how the Botanical Gardens were made a success? Was it not by the lime light [laughter], yes, and other very great attractions? [hear, hear]. Well, now, they were threatened with an aquarium and other attractions which suited all modern requirements and all the wants of the present very-much-changed state of society [laughter]. Well, then, what should the Royal Horticultural Society do? Should it not, as was generally said and accepted, do if it went into Rome as Rome does? [hear, and dissent]. Now, one of the plans spoken of frequently to the Fellows of the Society was the establishment of a skating rink [cheers]. Well, from what he had heard he had to take rather a melancholy view of the subject [a laugh]. He knew very well that the establishment of a skating rink would be a source of greatly-increased revenue to the Society. Well, had the shows increased? If they had it was on the scale of an Irish increase—an increase the other way [laughter]. Respecting the privileges of the Fellows, no doubt there were many, and, as far as they went, valuable ones, but there could be no doubt that there was a very considerable difference of opinion with respect to the new resolutions which the Council had proposed [cheers, and cries of "no"]. The chief thing spoken of by the noble lord in the chair was the abuse of entrance fees, or rather the abuse of transferable tickets, and he (Mr. Guedalla) did not believe that a curtailment of this privilege would bring about a decrease of the abuse if it existed [hear, hear]. His own experience was that with respect to this matter he had not used orders at all. Indeed he had carefully avoided making use of the privilege [hear, hear]. In conclusion of his speech Mr. Guedalla asked the members to be united—to act with one aim and object—the promotion of horticulture and the continued and improved existence of the Royal Horticultural Society, and he emphatically stated that if this were done petty and miserable jealousies and differences would sink, and the Society become, what it was not now, a great national institution [loud cheers].

LORD ALFRED CHURCHILL said he felt very much indebted to his noble friend in the chair for the observations he had made, but he wished to say he did not think the Council would be able to raise by their scheme the income of the Society, and neither did he think that the proposals of the Council were applicable to the great majority of the Fellows. He did not go with the Council that there had been an abuse in the transfer of tickets [loud cries of "hear," and counter cries of "yes"]. If the Council would not treat the Society in a liberal manner, by all means let the Fellows pay for what they got, but let the Fellows at the same time maintain their privileges, and have the power to transfer tickets to friends whom they think proper to have admitted to the gardens [cheers]. He felt certain that unless the Society gave greater facilities and privileges to members they could not by any means raise their income to £10,000 a year. Of course the Society could increase their receipts by diminishing their expenditure [a laugh]. But then the question was, Did any means exist by which the expenditure could be reduced? [hear, hear]. The cost of the gardens had gone on increasing, and it should be borne in mind that the cost of their maintenance was not taken into account [hear, hear]. Indeed, as most of the Fellows knew, it was not taken into account at all. And after all it was the great cost resulting from the management of the gardens which had affected and brought the Society into its present position [cheers, and a cry of "no"]. At any rate, his lordship believed that the true interests of horticulture would be promoted by the severance of the horticultural element from South Kensington gardens ["no" and "yes"]. He could not and he would not believe in these gardens being converted into bricks and mortar for the benefit and at the will of the Commissioners [loud cheers]. With regard to the Horticultural Society he believed if they only went back to their old quarters at Chiswick—he should indeed say their original quarters at Chiswick—would certainly bring about a better state of feeling amongst horticulturists, and a bright future for the Society. There was really a noble love for horticulture in the people of this country. People saw that in the number of growing societies, but these had no cohesion in them, or rather among each other. Well, one thing he should suggest was that a system of lecturing on the principles and the science of horticulture should be adopted [hear, hear]. The Society ought, by means of correspondence, have itself in communication with the horticultural societies of the Continent. Indeed, even from America and Australia the Society ought to be able to have, if its correspondence were properly carried on, a large amount—indeed, a very large and important amount, of continental and American news. He should just like to remark that he should think it was advisable to come to some decision as to the alteration of the Charter. He should not at the present time trouble them with any

schemes of his own, but, he might sincerely say—and he knew all the Fellows present believed him—that he had the real interests of the Society at heart. He thought, and he said it with great respect for the Council, that if they took back their proposals and reconsidered them, he doubted not an agreeable method for solving their difficulty and saving the Society would be amicably arrived at [cheers]. If the propositions of the Council were adopted the Charter would have to be altered, and at the same time horticulture would have to be practically abandoned ["hear, hear," and cries of "no, no"]. Lord Alfred Churchill concluded in the following words: I think it the Council would take back their proposals and reconsider them, I doubt not that we shall come to the adoption of a more agreeable method likely to benefit the Society [applause].

Mr. LIGGINS said he disagreed *in toto* with the propositions of the Council, which he thought would do the Society more damage than probably they ever expected to receive [a laugh]. He had never heard a statement which more surprised him than that of Admiral Hornby made at the last meeting. And for this reason that he (Mr. Liggins) being a resident of Kensington for fifty years claimed to know the feeling of Kensington, and he was therefore quite surprised to hear Admiral Hornby's opinion—that was the opinion of a perfectly new member leading them into a fog [laughter]. It was stated by the Admiral that the most disastrous results would occur, not to the Council alone, but to the whole body of the Fellows.

THE PRESIDENT.—Was that a statement made at the present meeting?

Mr. LIGGINS.—No, it was a statement made at a former meeting.

THE PRESIDENT.—Oh, then, it was not on the present occasion, so please don't refer to it [hear, hear].

Mr. LIGGINS.—Well, I will shorten my remarks, and I say I am not going to be shunted out of the Royal Horticultural Society [much laughter]. I claim the right to my own privileges [loud cries of "hear"]. As an old four-guinea Fellow I do not think the Council have any right to touch my privileges [loud cheers]. I have always enjoyed a transferable ticket. Well, are my wife and my daughter not to use it? [cheers and counter cheers]. I think a gentleman says "No." Well, if not it would be a perfect waste of money to throw it away upon subscriptions to the Royal Horticultural Society [hear, hear]. From conversations I have had with many Fellows of the Society I find that a general feeling prevails that they, as a body, are determined not to give up their privilege of being possessed of transferable tickets [cheers]. I hope I express the feeling of the meeting [cheers and dissent]. We are all anxious to raise the income of the Society.

THE PRESIDENT.—How? [loud cheers and laughter].

Mr. LIGGINS.—It is not for me to dictate to the Council ["oh," laughter, and cheers]. Mr. Liggins went on to say that he thought there would be no difficulty in the Council raising the income of the Society; but if the Council wanted to increase the revenue of the Society it must be done by means of increased facilities at reduced cost. It was a perfectly backward movement to take away the privileges of the Fellows; and more than that, he felt perfectly certain the Fellows would not submit to it [cheers and laughter]. He hoped the Fellows would not stand upon the subject of the resources of the Society, but would stand as men, and continue to be Fellows of this fine old Society [cheers]. Speaking of the question of transferable tickets Mr. Liggins said it was not a very pleasant thing to be told that Fellows had been mis-using tickets, and were dishonourably doing so.

THE PRESIDENT.—Nothing was said about dishonour.

Mr. LIGGINS.—The word "dishonour" may not have been used, but the language of the noble Chairman was rather harsh.

THE PRESIDENT.—I must say I do consider it an abuse when the members of another household are enabled to visit the gardens by the use of the name, or rather the ticket of a Fellow of the Society [loud and prolonged cheers].

Mr. LIGGINS.—That is quite my view [cheers and laughter].

THE PRESIDENT.—Now, that abuse exists very largely. It does not exist as far as I am personally concerned, although I am a four-guinea Fellow, but I think it is really discreditable to those who practise that abuse [cheers].

Mr. LIGGINS.—It is utterly hopeless, or at any rate something like probable, for us to raise in the four or five years our income to £10,000 without giving greater facilities to the Fellows. If we could get a skating rink constructed, there is a fine piece of ground which is not wanted at all at the corner of the gardens.

THE PRESIDENT then in answer to Lord Bury, said that it had been submitted to him by members of the Council, that to their own knowledge the practice of transferring tickets existed, and he assured his friend that he (the President) was not taking any personal interest in the matter.

After a short discussion in which Lord Bury distinctly challenged any person to show, or give any proof, how the power of transferring tickets was abused,

Admiral Hornby (Council) said—Now the noble lord com-

plaints of the statement made. I will say that these tickets have been transferred from end to end, not of the West End, but of London [cheers]. What is the case? It is this, that people from all ends and sides of London get tickets, probably from the servants of Kensington and Brompton [hear hear]. Now, without entering into this matter more fully than perhaps would be pleasant to those concerned, he could honestly say that no less than five families had been in the habit of using his very own tickets.

A FELLOW.—Who is to blame? [cheers].

Admiral HORNBY.—Nobody, I submit, is to blame. You may not know it—probably you do not—but I can tell you positively that it is a constant arrangement that these tickets pass from one end to the other end of a fashionable neighbourhood. The fashionable people are not ashamed to use them, and they do use them. Now, there are plenty in this room who know I am speaking the common perfect truth, when I declare that many ladies and gentlemen living in the west end of London use the gardens of the Royal Horticultural Society without contributing one farthing towards their maintenance. I have no personal interest in this matter, but I have come upon this Council at the request of the people of South Kensington, because they thought I might do good, and because they knew I wished well to the Society [cheers]. I do say distinctly that these transferable tickets are abused [hear and cheers, and cries of "no"]. Very well, some one says "no." Well, I believe if the transferable power were taken away the Society would be saved [loud cheers].

A long and uninteresting discussion, in which Mr. Bowen and Mr. Shepherd took part, which was chiefly in favour of a skating rink, took place, and then the practical part of the business of the meeting was resumed. Sir Alfred Slade, Bart., said he thought it right to ask the opinion of the meeting on the propositions of the Council, but neither the honourable baronet nor the noble lord (Bury), who was of his party, waited for the conclusion of the proceedings. But this was the case, notwithstanding Sir Alfred Slade before he left the room making use of the following words:—"I do think it right to ask the opinion of this meeting on the proposals of the Council." The baronet generally took objection to the schemes of the Council, and then Mr. Bateman spoke of the necessity of the Society looking at the "extreme gravity" in which it was placed. In conclusion of a lengthened speech which dealt with the general details of the Society, Mr. Bateman said he should move, "That this meeting be adjourned to give a sufficient and proper time to the Council to reconsider their propositions" [loud cheers].

Mr. STEWARD seconded the motion.

Mr. W. H. JACOB asked the meeting not to adopt the suggestions of the Council, although he might say his tickets were no use to himself or family. Indeed he had sent his tickets to those who had children, that the latter might be sent to the gardens. That he did not think was what the noble Chairman called an "abuse" [cheers]. In conclusion he begged to move, "That this meeting begs to ask the Council of the Royal Horticultural Society to reconsider their suggestions to the Fellows" [cheers].

Mr. CHARLES MORGAN seconded this motion or amendment, and remarked that it was a shame the scheme of the Council did not provide for families.

The PRESIDENT.—The resolution to which you have moved an amendment does provide for families. I mean the new regulations proposed by the Council, which may be taken in the form of a resolution.

Mr. LITTLE (member of Council) in a few well-chosen words spoke of the absolute necessity of those who used the gardens paying for them, and he added that if they took the population of the noble houses around the gardens they would find that not more than 10 per cent. were Fellows of the Royal Horticultural Society [cries of "shame"]. But then there were great numbers who used the gardens but never paid for them. Probably after the publication of the proceedings of this meeting those ladies and gentlemen who had been enjoying the gardens a long time at no expense might see the necessity of contributing something towards their maintenance [cheers].

Mr. KNILL said he should neither vote for the resolution nor the amendment.

Mr. SHEPHERD hoped that like himself there were Fellows willing to give up some of their privileges for the common benefit of the Society.

A FELLOW.—I am afraid not.

Mr. SHEPHERD.—I should be sorry to think that selfishness was a characteristic of the Fellows of the Royal Horticultural Society [cheers, and some laughter].

Mr. CAIRD recommended that the Council should reconsider their scheme.

After some conversational discussion

Dr. PINCHES moved "That the Council be requested to reconsider the privileges for 1876."

Mr. LISGINS seconded the amendment, which, of course, was substantially a negative to the propositions of the Council.

Mr. W. HAUGHTON (Council) wished to say he was the sole dissident with the majority of the Council on the question of transferable tickets.

After a short discussion the amendment proposed by Dr. Pinches (which was afterwards put as a substantive motion in consequence of the proposal of a number of motions and amendments to the same effect) was unanimously agreed to amid some cheering.

LORD CARDWELL rose and said:—My Lord Aberdare, whatever the conclusions at which we ultimately arrive may be, we know that without harmony and support of authority we shall not be able to get out of the difficulties of our financial position [cheers]. I think we are extremely fortunate in having you, my Lord Aberdare, at the head of our proceedings [cheers]. We have taken into consideration at great length a great number of proposals, and that has led to the conclusion, which I understand we have given, that the Council will reconsider and resubmit them. Like many others I am one of those who took a forty-guinea ticket, and I may say I think we ought in this matter make considerable concessions, because it has been clearly shown that while these local admissions are in existence it tells upon the accession of new subscribers; and I think I need not tell you that without a large accession of new subscribers we cannot get on. I am glad, my Lord Aberdare, that you and the Council have accepted the motion; and I hope, as I have no doubt you will, reconsider the proposals in the interval between this and the next meeting, and that you will be able to bring forward proposals which the Fellows will be ready to accept. I beg to ask of you, ladies and gentlemen, to give your cordial thanks to the noble Chairman for his conduct in presiding at this meeting to-day.

The motion was carried with acclamation, and Lord Aberdare having replied briefly, the protracted proceedings were brought to a close.

## NOTES AND GLEANINGS.

In reading Dr. LIVINGSTONE'S "LAST JOURNALS" we have many times had regret forced upon us that he had no botanical knowledge, nor any supplies to aid the natives of interior Africa in their gardening. Continually occur notices of trees and plants without any information enabling us either to identify them or to determine the natural orders to which they belong. The chiefs, as well as all the people, delight in cultivating the soil, and the cultivation is judicious. They trench the soil, burn the weeds slowly by covering the heaps with sods, and they spread the ashes over the surface; they irrigate their crops until the rainy season arrives. Peas, Beans, Pumpkins, and other crops are mentioned, besides many fruit trees. Of these last is the Fig tree. It is, says Dr. Livingstone, "always planted at villages. It is a sacred tree all over Africa and India, and the tender roots which drop down towards the ground are used as medicine—a universal medicine. Can it be a tradition of its being like the Tree of Life, which Archbishop Whately conjectures may have been used in Paradise to render man immortal?" In future African exploring expeditions we hope a botanist and a gardener will be of the party, and a good store of useful seeds be with them.

— We have received the schedule of the GREAT EXHIBITION OF HORTICULTURAL PRODUCTS which is to be held at Brussels on the 30th of April, 1876, in celebration of the hundredth anniversary of the Société de Flore de Brussels. It is an unusually rich one, and besides collections of plants and groups it has special classes for no less than 104 distinct genera. Besides the prizes of the schedule there are four special prizes of honour. To the foreign exhibitor who, by the richness and merit of his collections, shall have contributed most to the splendour of the Exhibition—first prize, a large gold medal offered by the King; second prize, a gold medal offered by the Comte de Flandre. To the Belgian exhibitor who, by the richness and merit of his collections, shall have contributed most to the splendour of the Exhibition—first prize, a large gold medal offered by the Queen; and second prize, a gold medal offered by the Comtesse de Flandre.

— THE YORK SOCIETY OF ANCIENT FLORISTS held its annual meeting on the 7th inst., when arrangements were made for the shows of the coming year. On the 9th the members held their annual feast convened by a summons on which the Royal arms have not the white horse of Hanover, which indicates that its foundation was before the Georges.

— ON the 6th inst. Mr. MECHI took a final leave of THE FARMERS' CLUB. After delivering a very sound lecture on "The Treasures of the Air, the Soil, and the Subsoil," he concluded by observing that having attained his seventy-fourth year he considered his agricultural efforts concluded.

No man has effected more cultural improvement by the combination of sound science and practice than Mr. Meehl, and no one can point to existing evidence with more certainty than ourselves, for we know what his Tiptree land yields now, and we knew personally its comparative sterility when he entered upon its cultivation.

—We regret to hear that the *PHYLOXERA* has made its appearance in the vineyards of Tarragona and also in different parts of Portugal. The Spanish Agricultural Council were to meet Dec. 11th, to consider the best means of arresting the progress of this scourge.

### A PROLIFEROUS POINSETTIA.

SINCE the introduction of the well known plant *Poinsettia pulcherrima* from Mexico forty years ago it has been without a rival as a distinct, scarlet-bracted, winter-decorative plant. It is now, however, likely to be effectually superseded by a new and totally distinct form, which has also been discovered in Mexico by M. Roehl, and which is regarded by that collector as the most valuable of all his discoveries. The entire stock of the new *Poinsettia* is in the possession of the Messrs. Veitch, and is now in full beauty at their nurseries at Chelsea.

The examples which we have seen of this plant are remarkable alike for the size of the heads, their form, the distinct character of the bracts, and their marvellous brilliancy of colour. In the old type the plant is surmounted by a single cluster of yellow flowers, from the base of which the bracts radiate in a horizontal manner. In the new form the central or primary cyme, which is surrounded by splendid bracts, is, as it were, the root of other flowers which spring from it on short simple stems, each surmounted by flowers and bracts; and these secondary heads become further subdivided, and forming also perfect flowers and bracts—the head, in fact, culminating in a multiplication of parts, each perfect and of extraordinary brilliancy. The individual bracts differ also from the normal species by their longer petioles, so that each principal bract, instead of extending horizontally, is gracefully arched after the manner of the leaves of *Dracæna Cooperi*: thus each head forms a perfect cone of colour, and not a simple flat disc as in the old species.

The head which we more particularly noted was 16 inches in diameter, and from the base to the apex of the cone of drooping bracts was 11 inches in depth. The bracts on this head were fifty in number, arranged on seven separate cymes which had sprung from the primary base. The colour is superlatively brilliant, as if a delicate tint of orange floated over the intense scarlet, imparting a more dazzling appearance than is possessed by the old species. If the designation "a cone of fire" is applicable to any plant in existence this is the one; and if it proves constant to its character, as every head we have seen is constant, it is a plant which must find its way into all gardens in all lands where stove plants are cultivated, and form a brilliant monument to the researches of Mr. Roehl.

### FRUIT KEEPING AND ROOM.

FROM what I have read and heard from various parts of the country Pears and Apples are keeping very badly this year, which is attributed to so much wet during the end of the autumn. Both Pears and Apples are keeping as sound with me as they generally do at this season of the year. Louise Bonne of Jersey, Comte de Lamy, Marie Louise, Durondeau, Haeon's Incomparable, Aston Town, and Winter Nells are all as sound as when gathered. Some of them are unusually large. Kerwick and Manks Codlins and Lord Suffield Apples were only finished on the 20th of last month. Celini, Round Winter Nonpareil, Beauty of Kent, King of the Pippins, Ribstone, and Golden Noble we are using at present.

My fruit room stands almost due south and north, apart from any other building except a small room at one end used for storing away early and late seed Potatoes. It is ventilated at the top, both ends and sliding shutters, also two trap-doors in the roof of the ceiling, which causes a regular circulation of air during the storing-away season, and dries up the overabundance of moisture given off when the fruit is first gathered. There is also a sliding ventilator in the top of the door, and the inside of the window closed up with shutters which meet in the centre right and left, so that they can be opened with very little trouble when required, as they slide in

a groove into the hollow walls so that no frost can enter; when the weather is unusually severe we can put on a fire, but is seldom used. There are six tiers of shelves 2 feet wide, with strips of wood 2 inches wide and 1 inch apart between, so that the air circulates right under the fruit.

How often do we see fruit rooms put up on the back wall of hothouses, which is too hot and dry for keeping fruit any length of time, as it ripens too prematurely and shrivels. I sent in on Midsummer-day a dish of Sturmer Pippin, Braddick's, and Old Nonpareil, as sound and fresh as when gathered, fine in colour and flavour, when I have seen the same varieties shrivelled up by the end of April in fruit rooms put up at the back walls of hothouses.—WILLIAM MACPHERSON, *Snelston Gardens*.

### PHLOXES.

THEY can be grown from 1 foot to 18 inches in height by striking the young shoots late in spring. When rooted report them singly in small pots, ready to be planted out into beds or borders where they are to flower. During the summer they will throw up heads of their richly-coloured flowers, of which there is a great variety. We generally find them stuck among shrubs in some out-of-the-way corner of the garden struggling for life, but all lovers of flowers ought to allot a prominent place for these fine herbaceous flowering plants. They are especially well adapted for pot culture, for decorating the greenhouse or conservatory, and when well grown they will surpass many of the usual greenhouse flowering plants. They are easy to manage.

I now name a few sorts worthy of note, as follows:—White Lady, Mons. Guldenschuch, Edith, Deliverance, Mrs. Dombrain, A. Verschaffelt, Mons. Domage, Madame Moisset, Madame la Comtesse de Turenne, Chanzy, William Rollison, M. Gustave Doré, Mons. Lannay, Etoile Merully, Madame Antin, Flora Macnab, Mars, Daux, Mons. Hughson, L'Avenir, Rex, Madame Atzer, Lohair, Haroules, Miss Robertson, Socrates, Mrs. Greenshields, Chatiment, Coquette de Parc, Rosa Alba, Baron de Charette, Rêve d'Or, Cocineas, Prima Donna.—E. H., *Mountains, Hildenborough*.

### ROLLESTON HALL.—No. 1.

THE SEAT OF SIR TONMAN MOSLEY, BART.

THE estate of Rolleston has been in the possession of a long line of owners of high and ancient lineage. It is directly traceable to the ownership of Edward the Confessor, and was subsequently enjoyed in turn by Earl Toeti, Morear Earl of Northumberland, Robert de Ferrers (first Earl of Derby), Sir Henry de Rolleston (whose descendants resided here for four centuries), the estates eventually passing by purchase into the Mosley family in 1614.

This family is also of ancient lineage. Near Wolverhampton is the hamlet of Moseley, derived from the Saxon Meos (Moss) and Leay (field); in Domesday it is called Moleslel. Of this hamlet Ernald became first tenant and then owner, and, as was the custom in those times, derived his surname from the place of his residence—thus Ernald de Moseley. Ernald's sons, Oswald and Osbert, migrated to York and Lancaster, and gained a substantial position in the latter county, Nicholas Moseley, Esq., becoming established on an estate at Hough End near Manchester. In 1596 this gentleman purchased the rights and appurtenances of the manor of Manchester, which continued a part of the hereditary possessions for 250 years; these rights, after much litigation in their defence, were sold to the Corporation of Manchester in 1846. In the collegiate church of that city memorial plates are inscribed to Sir Oswald Mosley, lord of the manor of Manchester.

Nicholas Mosley was Lord Mayor of London in 1599, and was knighted by Queen Elizabeth to mark her high approbation of his services during that period, Her Majesty at the same time presenting him with a richly-carved oak bedstead and other furniture. The bedstead was unfortunately destroyed in the disastrous fire which occurred at Rolleston in 1871, some of the other furniture being preserved, and is now as bright and sound as when it left the carver's hands. In 1720 Oswald Mosley was raised to the baronetage by George I. Sir Oswald was succeeded by the Rev. Sir John Mosley, who restored the mansion in 1757. Sir John was a gentleman of benevolent disposition but eccentric habits, as may be gathered from the following characteristic address which he delivered at a meeting of noblemen and gentlemen at Stafford, who had assembled



for a charitable purpose and had put down their names for various sums. Sir John, who was attired in a threadbare coat and was unknown, rose from his seat and said, "I have ridden four and twenty miles on one horse to attend this meeting with £50 in my pocket, with the intention of giving it in this good cause; but when I see upon the subscription list which has been handed round the names of noble lords and wealthy gentlemen with such paltry sums attached to them, I fear I should be shocking their feelings were I to carry my intentions into effect; and am therefore constrained to replace in my pocket the greater part of it, which I shall reserve until some future occasion, when a spirit of liberality may be more prevalent among them." All eyes were directed to the speaker, and before the general inquiry of "Who is he?" could be answered, he was again on his horse and off to Rolleston.

In due course the late baronet, Sir Oswald Mosley, D.C.L.,

etc., succeeded to the estates; he was a gentleman of great literary attainments, and was an accomplished botanist and naturalist. His history of the fauna and flora of Staffordshire betokens great knowledge and research, and the botanical garden which he established at Rolleston was unusually extensive and complete. He also wrote the family memoirs, and a few lines from its admirable preface will testify to the high character of the author. Sir Oswald says to his children that he "writes not to fill their minds with arrogant notions of high descent, but with the humble hope that by recording the virtues and failings of their ancestors they may imitate the one and avoid the other, and under all circumstances trusts that they will take, as the only one test and guide, the word of God."

Sir Oswald died in 1871, and was succeeded by the present baronet, Sir Thomas Mosley, a true specimen of the English

Fig. 112.—ROLLESTON HALL—CONSERVATORY AND GROUNDS.

gentleman, and under no previous owner have the mansion, grounds, and gardens at Rolleston had greater and more tasteful additions made to them.

**THE MANSION.**—Immediately on his accession to the baronetage the present owner commenced making great additions to the mansion, but the fire, before alluded to, occurring in the same year, was so extensive as to necessitate the erection of an entirely new structure. This was completed in 1874, on the site of the old hall. The structure is square and commodious, being built of stone, and ornamented with stone balustrades. It occupies just an acre of ground, and is fitted with every modern convenience, including an hydraulic lift. The rooms are spacious and richly furnished, and contain pictures by eminent ancient and modern artists, including a fine presentation portrait by the tenantry of Sir Oswald Mosley. The library is extensive and choice. The oak staircase is very elaborate. In the drawing-room are splendid cabinets and vases which were removed from France during the Revolution, and which had been the property of Louis Philippe. The front hall is decorated with ancient oak furniture, armour, pedestals, vases, bronzes, and civil paraphernalia. Adjoining the mansion is the

**CONSERVATORY.**—This is a very fine structure with a central circular roof, and ridge-and-furrow side roofs, supported by light iron columns. It communicates with the mansion by

large glass doors, one entering the ball room, another the corridor, with access also to one of the side rooms. Thus one side and end of the building is in connection with the mansion, the other side and end facing the grounds and receiving light. The building is 70 feet in length by 50 in width, and about 40 in height. Gas globes are suspended from the roof, and the structure is lighted on special occasions, open tubes ascending from the globes, through the roof, which prevents the slightest injury ensuing to the plants. In the centre of the building is a handsome white marble fountain set in a basin of the same material, in which gold fish will be placed. There are broad central and cross paths with a path round the building, but 2 to 3 feet from the sides and ends; that space on the light side is occupied by a flat stage covered with gravel for pot plants, and on the wall side by a border for trained and climbing plants. The body of the building is occupied by four beds, the two on the dark side having as central occupants a splendid pair of *Dicksonias*, the others being planted with *Cissampelos*. At the corners are nice plants of variegated *Yuccas*, and on each side the ball-room door are a fine pair of green *Dracaenas* matched by a smaller pair of *Araucaria excelsa* at the opposite or garden entrance. The roof and columns are being draped with climbers—*Pasiflora*, *Clematis*, *Lapageria*, red and white; *Taxonia Van-Volxemi*, *Bougainvillea*, *Acacia*, *Habrothamnus*, *Abutilons*, and *Rhynchospermum*. The above are the permanent



plants. Associated with them were Poinsettias, of which hundreds are grown having discs of 10 to 14 inches in diameter; Solanums and Chrysanthemums, very large and fine; Richardias, winter-flowering Pelargoniums with trusses as fine and fresh as at midsummer, Harold, Excellent, and Vesuvius being the best; and several large plants of Sericographis Ghiesbreghtiana—this useful old plant is grown after the manner of show Pelargoniums, and in winter its glossy foliage and scarlet sprays are invaluable for cutting for indoor decoration. These are a few of the plants which were in bloom in October, and a more brilliant display can seldom be seen at any period of the year. Basket plants are also suspended from the roof, the most effective being *Aspidistra lurida* variegata fringed with *Tradescantia zebrina*; *Adiantum cuneatum* fringed with *Mesembryanthemum cordifolium variegatum*; *Adiantums* fringed with *Saxifraga sarmentosa*, and *Platycoerium* and green and variegated Ivy-leaved Pelargoniums. Besides the plants are birds which warble their songs of spring in the genial temperature which is provided, and these with the flowers, roomy premises, and inviting chairs which are provided, make the structure in the highest degree enjoyable. Externally it is appropriately ornamented, and is in excellent keeping with the surrounding architecture. It was erected by Mr. Ormson of London, and it is admirably furnished by Mr. Buck. Passing from its portals we enter

THE GROUNDS.—These are extensive, embracing upwards of fifty acres. The late baronet took great delight in the surroundings of his mansion and added much to their attractiveness, but he did not decorate in the "gorgeous style" and set his garden aglow with scarlet and yellow; he was too much of a botanist for that, and loved trees, and flowers, and Ferns for their own inherent beauties, and not because they would "go well" with any particular system of embellishment. He therefore planted trees, but not in formal lines; dells and hollows he transformed into caverns and grottoes for his Ferns; made rustic buildings, and arranged his plants in systematic and botanical order. This work still remains and speaks highly for his taste and industry. The present baronet has also improved largely—in fact he is continually improving—improving yet preserving. New lawns have been made, and Conifers permitted to develop themselves; drives and walks have been judiciously formed, and structures erected both of an ornamental and useful character. The site is generally flat, the mansion overlooking a park of considerable extent containing fine trees and effective water scenery. The lawns contiguous to the mansion are very spacious, and contain isolated specimens of deciduous trees and some very fine Conifers. Near the mansion is a terrace walk about 100 yards in length ornamented with vases, and in the summer with several fine specimens of *Aloes*. Near the extremity of the terrace in a square recess fronting Sir Tonman's private apartments is a flower garden, the design being appropriate to the architecture; and this in summer is furnished with bedding plants, in winter with hardy plants, and in spring is gay with bulbs. From the terrace are many pleasing views, one of which, showing the church in the distance—a venerable structure about to be restored, is shown by our woodcut. In this view glimpses are obtained of some of the Conifers, the finest being a specimen of *Abies Douglasii*, the branches sweeping the lawn and measuring 52 yards in circumference. This specimen having lost its head a few years ago, Mr. Buck, with the aid of ropes and the assistance of an adjoining tree, fastened upright one of the side branches, which has formed a perfect substitute for the original leader. Another Douglas Fir raised from a cutting by the late baronet is now 80 feet high. There are also several good *Wellingtonias* and many fine Cedars of Lebanon. *Cedrus atlantica* is also in excellent condition, as are *Piceas pinus*, *Nordmanniana*, and other popular sorts. The lawns also contain very fine Yews, which have been judiciously tended; also Hollies and other shrubs, including *Rhododendrons*, flourish admirably in the strong clayey soil. The pleasure grounds extend to the reservoir, which is nearly a mile from the mansion, and is approached by an avenue of choice young Conifers. The reservoir was made by Mr. Buck to supply the mansion and gardens with water, and it must be admitted that he has accomplished his task in a highly successful manner, for no adjunct to the residence is more useful than this, and none more ornamental.

Another attraction of Rolleston is the hardy fernery. This is formed in a hollow, and is approached by walks curving through the shrubbery. It is completely embowered in foliage, and is an enjoyable retreat during the sultry days of summer.

The natural formation of the ground has been taken advantage of, the hollows having been deepened and the hills raised. These have been faced with rocks, and are charming by their very ruggedness, and the tortuous passages leading under arches into capacious caverns are richly clothed with Ferns. One of these grottoes is 50 yards in length, and is capable of affording accommodation to a large festive party, to which purpose it has been frequently devoted. How many natural hollows are there in shrubberies which are occupied with rubbish, which by a little, and only a little, tasteful application of art may be transformed into ferneries, and which as summer retreats and attractive nooks would contribute immensely to the diversity and interest of a garden? There are many such places, and the rocky dells at Rolleston are an example of how they may be beautified, and how appropriate they are for the cultivation of this elegant family of plants. In this dell the *Osmundas regalis*, *cinnamomea* and *cristata*, *Struthiopteris germanica*, *Lastreas* in variety, and *Oncoclea sensibilis* flourish luxuriantly; while equally healthy but of more lowly growth are *Aspleniums Ruta-muraria* and *marinum*, *Adiantum pedatum*, *Trichomanes radicans*, with thousands of the Hart's-tongue, Beech and Oak Ferns, which in cool spots and the shade which trees afford, will flourish in almost any sort of soil.

A notice of the more useful department of the gardens at Rolleston must be postponed; but here also considerable improvements and additions have been ably carried out by Sir Tonman's old servant and skilful gardener, Mr. Buck.—J. W.

### ATRIplex HALIMUS AS A SEASIDE PLANT.

Of late many inquiries seem to have been made about plants suitable for the seaside, and lists have been given; but there is one shrub which I noticed a few months ago at a fashionable seaside place that I do not recollect having met with before, neither is its name mentioned in any nurseryman's catalogue of shrubs. It was flourishing remarkably, and I expect will do so also in other places of a like kind. It is an old plant—at least it is reported to have been introduced into this country as long ago as 1640.

*Atriplex Halimus* is an evergreen shrub with foliage of a glaucous hue, habit bushy, and very distinct from other seashore shrubs. I believe it to be closely related to the garden Orach, and there is said to be one or two British species also of an eatable kind belonging to the genus. The species mentioned above seemed to make a neat and convenient hedge, to which purpose it was often put in front of some of the villas at Bournemouth, and its appearance indicated that it grew as fast as was wanted. It did not seem to object at all to any kind of soil offered it. The natural soil of the place is sandy or sandy peat; but we all know that in the immediate vicinity of a house newly built the material dug out of the cellars, &c., is mixed with the top soil, and in the place I speak of there were beds of a reddish kind of clay met with now and then not by any means inviting to vegetation, yet I think this plant did not object to it.

I believe it to hail from Spain, and though it has been in this country more than two centuries it is far from being well known, but it certainly deserves a trial in places where there is a desire to vary the ordinary list so often met with; and although there are many shrubs more to be admired than it is, the number that will bear the spray from a regular south-wester is only limited. Planted, therefore, along with Broom, Tamarisk, Gorse, Heath, and other plants, the chances are that this one will maintain its place. "And what is this?" is an inquiry the planter will probably often have made him; and possibly on that account he will think none the less of it. Of its hardihood for inland purposes I know nothing, but expect it is not without its faults, or it would have made its way long before this into general planting; but if it will do in very exposed places on the seashore it is well worth patronising, and I suppose by its appearance that it is not difficult to propagate.—J. BOBSON.

### APHIDES IN WINTER.

Most horticulturists must have noticed these insects in winter at full play (or work) in greenhouses that contain Geraniums, where the plants have not been properly attended to in the autumn, so that a juvenile brood, brought under cover while of small size, under a fostering warmth becomes fat and flourishing. I find, however, that aphides in small

numbers may be found on various plants out of doors during the dull season of the year. Nor have they been affected, seemingly, by keen east winds at the end of November—in fact, some gardeners, holding by the old theory that there are blight-bringing winds, believe that this blight in particular migrates thus at all seasons. Conclusive against this, however, is the wingless state of the aphides now about. Though in the bulk of the species belonging to the genus *Aphis* the egg state carries on the succession from autumn to spring, Nature probably does also protect from a possible extinction some of the species by keeping alive a few individuals as imagos during that period.—J. R. S. C.

#### NOTES ON VILLA AND SUBURBAN GARDENING.

**CUCUMBERS.**—Early Cucumbers are held in high estimation by almost everyone, and their production is often an object of a little wholesome rivalry as to who can out the first fruits fit for the table. Cucumbers are forced in structures heated by hot water, and also in common garden frames by dung heat. The latter may be designated the old-fashioned plan; nevertheless it is practised by many, myself among the number, and I am sure that the amateur will find that Cucumbers can be advantageously cultivated in that way, although more attention may be required than is the case when more modern structures heated by hot water are provided. I do not with frame culture advise that the plants be raised until after the shortest day, or they would remain long in a weakly state before having the advantage of bright weather.

As dung beds are so useful in a garden I advise that, if they are provided and sufficient heating material can be obtained, two frames should be set up—that is, a one-light first for raising the plants, and which can afterwards be used for raising other seedlings that may be necessary, and a two-light frame for fruiting the plants.

To those who require early Cucumbers I would say, Now is the time to commence operations by collecting daily as much fresh horse dung as possible, and place it in a heap under cover if convenient, and on a dry bottom (but this is not absolutely necessary), and mix quite one-third of fresh-collected leaves with it, which will help to sweeten the whole and save the manure. This heap must be turned at intervals of three or four days and be mixed thoroughly; and if there should be any indications of its heating itself dry a little water must be applied at the time of turning. When the whole has become sweet make up the bed.

Select a dry bottom for this, and with as much shelter on the north and east sides as can be obtained, and at the same time in a spot where the most sun can be secured. Do not lay the dung on the bare ground, but let the allotted space be first covered with a thin layer of wood or a layer of rough litter, just to keep the cold ground from acting upon the hot dung. Make the bed about 4 feet 6 inches high at the back and 3 feet 6 inches in front. This will sink quite 6 inches, but it will be large enough to afford the requisite heat, and the frame will have a good elevation. Make the bed 6 inches or more wider than the frame on all sides. In making it up take care that it is evenly done—that is, all must be made firm alike, or the bed will sink on one side more than another; and again, if the manure is not properly mixed one part will heat more violently than another and so endanger the plants. Put the frame on at once and leave the lights a little open at the top to let out the rising steam. When the violent heat has subsided, which can be proved by a trial stick inserted in the centre of the bed, it will be safe to put in the soil.

**Soil.**—This varies with many cultivators. Some use one mixture and some another, but in my experience it matters little about any particular fancy mixture. The Cucumber likes a good staple soil which must consist of loam which has been laid up for some time, and mix with it some well-rotted leaf mould, or, in the absence of that, rotten dung that has been reduced by decomposition to almost a black mould: both of these ought to be dry or nearly so. Place the soil in a heap in the upper part of the frame—about two barrowful will be sufficient—and after this has become warmed through the seeds may be sown either in the soil or in a pot of the warm soil and gently watered. The young plants will soon appear, and when large enough they should be potted off in the same sort of soil that is in the frame. Of course while this is going on the material for the other bed should be prepared and be made ready for the reception of the plants when large enough, but if no other frame is needed then put a plant or two out in the soil already in the early frame, water with warm water, and shade for a few days if the sun comes out.

**TEMPERATURE AND VENTILATION.**—The heat should be 75° or from that to 80°, but the temperature ought not to be below 70° at night; in the daytime the sun-heat will make a difference but a few degrees increase, though that will be an advantage. While steam rises half an inch of air may be left on all day and about half that during the night, taking care that the opening is

covered by a mat to stay the ingress of cold winds. As the plants grow and increase in strength, and the season advances with more light and sun, the system of airing, watering, and closing must be altered accordingly. Take care also to always have plenty of material ready for lining the bed when the heat is found to be declining. To do this some care is also necessary, for if done all round the frame at one time the chances are that the heat would be too much increased, therefore do either the two sides or the two ends at one time. Always protect the bed by straw mats or loose straw, for if severe weather sets in this will prevent it from taking so much effect. Of course the lights must be covered regularly every night; the glass, too, should always be kept clean, which affords the plants more light and consequently they gain strength.

**Sorts.**—These are very numerous. The true Telegraph is a thoroughly good frame as well as house Cucumber, and an excellent cropper, yet it is not so strong in constitution as some others. Cooling's Derbyshire Hero is a capital frame Cucumber, but even this when grown by the side of the old Syon House or Lord Kenyon's Favourite is not nearly so early. At one time I always grew the latter sort, but have not had it true lately. It is a short, smooth-skinned sort; it has a firm flesh of good flavour. This or any of the other sorts I have named above are well worthy of cultivation.—THOMAS REED.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

##### KITCHEN GARDEN.

The ground is still thickly covered with snow, which is very gradually melting by day, so that it is not possible to do anything on the ground. Two common sources of annoyance in gardens are rabbits and mice. Where the kitchen garden is walled-in the first-named are easily kept out. In our case a large portion of the boundary is protected only by galvanised wire netting; through or under this material they frequently find or make a passage, and do much damage to kitchen-garden crops, also barking young fruit trees. We have trapped them by scratching a hole in the way the rabbits do it themselves, and placing a trap on the top. A much more preferable way is to hunt them out of their shelter and shoot them. Mice are also very troublesome; they destroy bulbous roots, especially Crocuses. Peas in drills are also sure to be attacked. Radish seeds sown under glass invariably attract them, being preferred to those of Lettuce, although they will scratch up and eat the latter greedily if no Radishes are sown under the same lights. Traps of different constructions are used to destroy them. The figure-of-4 trap is easily set with a brick which falls on the mouse, instantly crushing it. Another very simple and effective trap is formed by placing two pieces of wood in the ground about 5 inches apart. A thread on to which three Peas have been strung and fastened at each end to the sticks supports a brick; the mice in gnawing the Peas out through the thread, which causes the brick to fall down upon them. Many different varieties of traps may be bought at any ironmonger's. All the forms of wire traps must be protected from rain, else the wires rust and do not spring readily.

There is always plenty of work to be done in bad weather; we are now cutting out pegs, sticks, and supports for Strawberries, both out of doors and in the house. The smaller branches from Elm, Beech or Hornbeam are the best materials from which to make them. For out-of-door Strawberries we use small branchlets about a foot long, with all the spray left on; these are just stuck into the ground close to the plants after the fruit is set. The fruit hangs over the axils of the sprays. Those used for pot plants are trimmed-in closer, three or four forks only being left at the end: it is necessary to study neatness when it can be done without being antagonistic to utility. When the weather is frosty advantage of this will be taken to wheel manure on ground intended to be trenched or dug. One often sees manure laid on the ground in barrowloads; this may be convenient, but it is the worst thing that can be done with it. Spreading it out would be better, but the best way is to lay it up on a heap large enough to do the quarter and throw a coating of mould over it.

It will now be necessary to cover the roots of Rhubarb, Sea-kale, and Asparagus with manure, especially those roots intended to be dug-up for forcing. We have now taken up and potted our Sea-kale roots, and as required they are removed to a house where they can have a little bottom heat. Rhubarb roots will force either in the early vineries or in the Mushroom house. The Asparagus has not yet had a covering of rich short manure; this will be applied on the first favourable occasion.

##### ICE HOUSES.

Every one having houses to fill have been very busy during the last week or two, when plenty of ice could be obtained an inch thick. There are very large ice houses at Barking near London, which are filled at considerable expense to their owners. The small farmers and other owners of horses reap a rich harvest

when the first ice is formed. The ice is stored all above ground; it is all sent to sea in the summer months to preserve fish until it can be delivered at Billingsgate Market. The usual form of ice house for private families is that of the inverted cone. The well is dug on the shady side of an elevated piece of ground, and is further protected from the sun's rays by being planted upon; the well is arched over and entered by a passage from 6 to 12 feet long. The well may be any size, the larger the better, but it should not be less than 6 feet in diameter, and 10 feet deep. The passage is paved with strong flagstones to resist the pounding of the ice with mallets; after being passed into the ice house it is further pounded, until a solid block of ice is formed in the house. The ice is best when it is about an inch thick. The secret in keeping ice is to pound it together so closely that little or no air can penetrate the mass, and it ought also to be kept from the air after the house is filled. The passage to the house ought also to be closely packed with ice.

#### MUSHROOM HOUSE.

Those who are preparing materials for the beds must be fully impressed with the importance of having the manure as dry as possible, for there is no danger at this season of having the beds too dry; if the materials are ever-wet the spawn will probably rot instead of running into the bed. It is seldom that the proper degree of temperature can be obtained with wet material, it either heats too much or becomes rapidly cold; whereas a moderately dry bed, if pressed down, firmly maintains a genial heat until the Mushrooms appear. As soon as they begin to show above ground the bed will most likely require to be sprinkled with tepid water; this prevents the surface from cracking, and produces fleshy Mushrooms which are dry and leathery if the beds become too dry; 55° at night and 60° by day is the best temperature for the house. Admit air daily even if it is in but small quantities. We do not like much artificial heat in the house. For the sake of neatness the roofs are generally slated, but thatch keeps up a far more equable temperature; it is cooler in summer as well as being far more preferable for winter.

#### PINE HOUSES.

During this month and next Pines do not require much attention. All the plants that have fruits in different stages of development must be looked over to see that they do not suffer for want of water at the roots; the soil does not dry very rapidly at this season, but still it must not become quite dry. It is necessary in the neighbourhood of London to wash the outside of the house as well as the inside; there is a certain amount of impurity in the atmosphere, and more so at this season than any other. We are always certain of a deposit of a sooty substance after the thick fogs. It need not be stated that not only Pines but all hothouse plants require all the light it is possible to give them at this season. We have also washed both woodwork and glass internally. No hothouse plants will succeed unless both plants and glass are clean, especially in the winter season.

#### PLANT STOVE AND ORCHID HOUSES.

Even more so than in any other plant-structure would we urge cleanliness in these houses; not a single ray of light should be intercepted, and this is also the best season of the year to eradicate all sorts of insect pests. Thrips are very injurious to Orchids; even *Lælias* and *Cattleyas* suffer very severely from their attacks when the growths are being formed. It is now a very good time to destroy them by fumigating. During the summer months the growths are rapid and succulent, being very easily injured by tobacco smoke. At present this can be applied strong enough to kill the pest without injuring the growths. It is best not to apply the smoke too strong; rather give it three times at intervals of, say, three days. Any plants that have dust or dirt upon the leaves should be carefully sponged with soapy water; we would insist on great care being taken when this is done, as many valuable plants have been permanently injured by the leaflets being bruised or broken when they have been washed.

The most useful of plants at this season are the Orchids, either for cutting from or for decorative purposes. Their showy, quaint, and attractive flowers far surpass the other denizens of the stoves; and the length of time, if they are carefully tended, that they continue is the greatest point in their favour. At present in our warm stove is a plant of Veitch's variety of *Vanda suavis*, the flowers of which have been in full beauty for at least a quarter of a year. Some autumn-flowering varieties of *Dendrobium formosum giganteum* last almost as long; then peeping out from an undergrowth of Ferns are numerous spikes of *Calanthe vestita* in variety, and the noble *C. Veitchii*.

Passing to a house where cool Orchids are grown we have the brilliant *Epidendrum vitellinum*, which has been in flower since July. *Odontoglossums* are always in flower. *O. crispum* is an "all the year round" species; the possessor of a dozen plants need never be without flowers. Some persons may think such plants are expensive, but it is not so. Freshly-imported plants in good health of many of the finest species may be bought in the principal London nurseries at 5s. each. There are of course a few rare species that will always command high

prices, but on the other hand they are always worth the money that was paid for them, or even more if the plants are kept in good health. Deciduous Orchids have now lost their leaves and are at rest; they require very little water at this season—only sufficient to prevent the pseudo-bulbs from shrivelling. The evergreen species must not have very much water, but they require rather more than the others.

We are very careful in watering all stove plants at this season, it is the resting-time for nearly all of them. Our aim is therefore to study the wants of the plants in this respect and when it is necessary to water them to give sufficient to saturate the whole mass of soil, not giving any more water until it is actually required.—J. DOUGLAS.

#### TRADE CATALOGUES RECEIVED.

Hogg & Wood, Coldstream, N.B.—*Catalogue of Forest and Ornamental Trees, Roses, Shrubs, Conifers, &c.*

Robert Cragg, Rose Nurseries, Car Colston, Bingham, Notts.—*Catalogue of Roses, Pansies, Spring and Summer Bedding Plants, &c.*

Richard Dean, Ealing, London, W.—*Classified List of New and Choice Potatoes.*

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

Books (*An Old Subscriber*).—M. Decaisne's book is costly. Messrs. Trübner, Paternoster Row, could inform you fully.

KEEPING APPLES AND PEARS (*H. A. W.*).—Place them singly on shelves in a dry cold room, and in the dark. Keep out frost and do not wipe them.

ROSE BEAUTY OF GLAZENWOOD (*P. L., Wolverhampton*).—This new Rose is in the hands solely of Mr. Woodthorpe of Glazenwood, near Braintree, Essex, who has not yet commenced selling it to the trade.

HEATING ARRANGEMENTS (*H. L. E.*).—The arrangement of the pipes is, as regards the greenhouse division, correct, and also those of the smaller or stove compartment, only you have too much "stuff" over the pipes to afford bottom heat for striking cuttings. The pipes to give bottom heat should not be covered more deeply than 6 inches with rubble, and upon it place the plunging material for the pots. We advise your having for the propagating bed a frame made with the hinged lights, and this with the greater moisture and closer atmosphere required for propagation will afford speedier and greater certainty of operation.

RAISING CARPET-BEDDING PLANTS FROM SEED (*P. F. S.*).—All the plants you name may be raised from seed, but except the *Amaranthus melanocollis* ruber all the others are best raised from cuttings, as seedlings are too green in the foliage to be of value for effect until late in the season. Dwarf-foliated plants for bedding purposes that may be raised from seed are Dell's Crimson Beet, to be sown early in April in good light soil in an open situation, and transplanted in May in permanent quarters, or sown at the close of April where the plants are to remain; *Cineraria acanthifolia* and *C. maritima*, sow in a hotbed in March and grow-on in heat, pricking-off when large enough to handle, hardening well off before planting out; *Echeveria metallica* treat in the same way as *Cineraria*, also *Oxalis tropaeoloides* and *Golden Feather Pyrethrum*. *Stellaria graminea aurea* and the other plants you name are raised from cuttings.

HEATING WITH INCH CONNECTION PIPING (*Subscriber*).—The 1-inch pipes connecting the 4-inch pipes in the conservatory will answer so long as they remain free; but from the accumulation of sediment and corrosion the waterway becomes closed in a few years, hence we do not advise anything less than 2-inch pipes. They would be better in a covered fine than in drain pipes, which are unsuitable, as they do not admit of access to the pipes in case of need for repairs. Rough plate glass a quarter of an inch thick is the best for the roof of a conservatory with a view to avoid shading the glass.

BOUVARDIA NOT THRIVING (*Bomcedia*).—The sprays sent are destroyed by thrips or red spider, or both, which arises from excessive heat and an insufficiency of moisture. To do well in winter *Bouvardias* require a temperature of 50° to 55° from fire heat, and even this is of no avail if the plants have not been properly prepared for flowering during the summer. Fumigate with tobacco, and maintain a temperature 10° less than that you at present have, with a moister but well-ventilated atmosphere. We shall have an article shortly on the cultivation of these plants.

POTATOES AND GOOSEBERRIES FOR EXHIBITION (*G. F.*).—The best four sorts of each section at the Alexandra Palace Potato Exhibition were:—*Rounds*—Porter's Excelsior, Rector of Woodstock, Model, and Early Market. *Kidneys*—Snowflake, Perfection, Excelsior, and Waterloo. The best Gooseberries at the National Show at Manchester were:—*Red*—Ploughboy and London. *Yellow*—Leveller and Ringer. *Green*—Shiner and Telegraph. *White*—Antagonist and Hero of the Nile.

CONSTRUCTING GREENHOUSES (*G. E. L.*).—We fear we can be of little service to you beyond giving you a few ordinary hints as to the general construction of the house. We presume that being erected against a north wall it will be on the southern side, and a lean-to. The house is narrow; the width would be better increased to 9 feet, and having a 9-inch wall in front this

would leave you 8 feet 3 inches clear space between the walls. The front and end walls we should have 2 feet high above ground, and above this 3 feet of front lights, and the ends sashed for glass above the brickwork; every alternate light along the front to open, and a light along the top the entire length 18 inches wide made to open; both being opened with a crank and lever. Upon the walls you will require a wall-plate 11 inches wide and 24 inches thick, projecting an inch over the wall outside, grooved half an inch from the side or under the outer edge to prevent drip down the face of the wall, and be slightly bevelled outwards from the lights. The front upright may be 7 inches by 8 inches, with an upper plate of 9 inches by 24 inches, and fixed on the uprights an inch back from the face of the wall-plate. The rafters 7 inches by 8 inches rebated three-quarters of an inch deep and half an inch wide for the glass to rest on, and chamfered to half their thickness on the under side. The rafters will not require to be rebated or chamfered only on one side, and those we should have fixed 3 feet apart, mortising the back wall plate, which should be 11 inches by 14 inch, and properly screwed to the wall, the rafters properly tensioned and fitted into the mortice holes at back cut at front so as to fit on to the front upper plate, and so that the rebate for the glass will be level with the upper outer edge of the head plate of the front. Between each rafter have main-bars 8 inches by 14 inch rebated as the rafters, and chamfered on the under side, and fix them so that they will be level with the rafter on the outside, and have a fillet of about 24 inches in width, and so deep as to fill up level with the rebate for the glass. The ends may be sashed for glass with main-bars 8 inches by 14 inch. The door-posts, 6 inches by 4 inches, and be taken up to the end rafters, and the head of the doorway to 4 inches by 8 inches, and continued across the end or ends if you have two doors, preferably at both if you have only one door, and next the wall you will need a plate 4 inches by 8 inches. The top lights 3 inches thick, and the front lights the same, sashed so as to match the roof, hung with 84-inch brass butts. Door, 2 inches thick, flush panelled, upper parts sashed for glass. The timber wall seasoned red deal or yellow pine; the glass 21-oz. sheet, 3ds quality, with quarter-inch lap. We should have a stage 2 feet 3 inches wide along the front, that height from the floor, path 2 feet 8 inches wide, and a step stage to the wall. You will need a capping to cover the joint of the top lights, and a cross-piece acrosswise of the rafters to receive the top lights. We hope you will be able to understand the above details, but as you appear not to be initiated in greenhouse construction we should advise you applying to some of the horticultural builders advertising in our columns, stating dimensions of house you require, and asking for estimate. It would save you much trouble, and might be more economical.

**FORCING ASPARAGUS AND POTATOES IN FRAMES.** (*A Constant Reader*).—You will need to make up a bed of well-sweetened dung and leaves about 8 feet high, well beaten down, and putting on the frame in about a week, when the heat will have risen; and when it declines to a temperature of 78° it may have soil put on 6 inches thick, and when this is quite warmed through put in the Asparagus plants quite closely together, with soil carefully placed about the roots, and between each layer of plants, the crowns not covered deeper than 2 inches, and the distance from the glass should be 12 inches. The temperature of the bed should not be allowed to decline below 65°, but be kept up by linings, and protected with mats over the lights, so as to maintain in the frame a temperature of 55° to 60°. In about a fortnight the shoots of the Asparagus will be fit to cut. The mats in mild weather after the shoots are 4 inches long should be removed by day, so as to give colour and flavour. The Potatoes to be planted in the bed in rows 15 inches apart, and 1 foot apart in the rows, and 4 inches deep, employing sets previously sprouted an inch long. It is well if the sets are not planted until the heat at 4 inches deep has declined to 70°, and it should be kept up to 65° by linings, protecting from frost by mats over the lights, giving air after the hails appear whenever the weather is mild. The main point to be aimed at is a steady growth. Avoid overheating.

**VIOLETS IN WINTER.** (*Idem*).—Plant rooted runners or suckers in April or early in May, in good rich soil a foot apart every way, water well after planting, and in dry weather, keeping clear of runners and weeds; and at the close of September move to frames placed in a dry sheltered situation, and sunny, planting so as to be not more than 9 inches from the glass. The lights to be kept off day and night until frost, and then kept on the frames without air when frost prevails, but whenever the weather is mild air to be given day and night in proportion to the coldness or mildness of the weather. Remove all decaying leaves as they appear, and do not plant closer than 9 inches apart. The plants to be moved with balls. We grow Victoria Regina, which commences blooming in September, and continues up to spring. It is a great advance in size, fragrance, and colour over Oscar, or any single blue Violet yet in commerce. Neapolitan, pale double blue, and very sweet, blooms in October onwards through the winter up to April, and in February the Double Purple and King of Violets, also double blue, with the very large and fine double white Queen of Violets, which is very fine and good, and continues until those bloom in the open ground. With these and Oscar, with the Single White, which we also grow in quantity, we have Violets from September to May inclusive.

**GERANIUMS, PRIMULAS, AND ANASTILIS TO FLOWER IN MARCH.** (*Inquirer*).—The Geraniums and Primulas will be in their blooming pots, and the former will only require to be kept in a light airy position in a cool greenhouse, frost being, of course, excluded, and assisted with weak liquid manure at every alternate watering after the pots are filled with roots, and the Primulas to have a similar position, carefully watered, and have the trusses of bloom moved up to the early part of February; but so much depends on the present state of the plants that without seeing them it is not practicable to give any precise hints. The Amaryllis should be placed in a mild bottom heat the early part of February, and when the flower-buds and leaves begin to grow out of the bulbs remove to a house with a temperature of 80° to 85° from fire heat, affording a higher temperature if likely to be too late for your purpose, or placing in a cool house if too forward. To have plants in bloom at a certain time requires some timely forethought and judgment, which can only be exercised by the grower.

**TREATMENT OF LATE VINEY.** (*Newark*).—The method you propose will not injure the Vines, and it will prevent them from starting until the spring. As soon as the buds start you must shut-up the house in the usual way. It will take them all the season to ripen.

**PEARS NOT BRUTAL.** (*T. P. M. R.*).—Some varieties of Pears if allowed to hang on the tree until they are ready to drop off do not ripen well. It is evident that your examples of Maccrill Egg were allowed to hang too long. You have gained experience which ought to be useful to you next season. You must have allowed Bourré d'Ammon to hang too long. Ours were very good in quality this year. Bourré d'Ammon from pyramids always ripens with us.

**TREATMENT OF FLE-THANE.** (*F. W.*).—If your Fle-thane are out of doors the small orange fruit will drop off, so that it may as well be removed. If under glass the very small fruit of some varieties will ripen early next season. We would not remove them.

**PRUNING FRUIT TREES.** (*W. E. Payne*).—Now is the time to attend to the trees. You will see some instructions as to how it ought to be done at page 516.

**BUNNING BRIARS.** (*G. G.*).—Cut the Briars straight across and put nothing on them. It is on the young side shoots that Bases are budded. The Mammoth stock is named after an Italian professor.

**REMOVING TREES.** (*Jobes*).—A tenant under notice to quit cannot remove fruit trees, neither can he destroy them. He cannot change for laying down lawns, nor can he take away flower roots.

**IMPROVEMENT HEATING APPARATUS.** (*J. H.*).—There is nothing particularly new with a heating apparatus which is so severe a winter as 1874 only required 2 tons 15 cwt. of coal to keep frost from a conservatory; but you say much wood was used in addition to the coal. If not more wood than coal, we do not think the consumption of fuel excessive. Surely you mistake about an "hour and a quarter" action on the boiler with a brick fire being required "before the slightest heat is felt as the commencement of the flow-pipe." There is great difference in stoking. We have known a better fire and more heat had in an hour by one man's stoking than by another in half a day; hence we do not attribute the slow heating to other than slow stoking. There is no advantage in a fire over heating by hot water except for small houses; requiring to be only used in severe weather or dull to exclude frost or dry up damp. We agree with you, however, in utilizing the heat which escapes by the chimney from a boiler furnace, and which may be made to pass along the house in addition to the pipes; but in a conservatory a fire would in many cases be objected to. The great objection to a fire is the excessive heat at the part nearest the furnace, and the liability from cracking of noxious vapours escaping into the house and injuring the plants. There is no difference in heat in point of dryness as given off from the surface of a hot-water pipe or fire, but there is great difference in the temperature, and the greater the heat the sooner is moisture in the vicinity dispersed, and with water on the top the greater the heat the more quickly would it be evaporated, doing more harm than good in winter by the steam generated. It is different with a fire passing through a house after the heat has acted on the boiler surface, there being no danger of overheating the fire surface unless by the firing of accumulated soot.

**THREE COTTA VASES.** (*Idem*).—They are not, if properly made and water not standing in them, injured by frost. We have, however, had them when not well made cracked and splintered during the winter.

**MANURES.** (*Information*).—We have not used that you mention. Write to the preparer and ask him for some names of those who have.

**MAKES OF FRUIT.** (*J. M'Kenzie*).—The Pear should have been in a box. The post-office punches had smashed it. (*W. E. Ashwin*).—1, Windsor Mills; 2, Zéphirin Grégoire; 3, Drap d'Or; 4, Carol's Seedling; 5, Sir William Gibbons; 6, Not known. (*G. F.*).—4, Norfolk Seedling; 9, Delaware; 12, Pearson's Plate; 15, Golden Harvey; 17, Russet Table Pomegranate; 20, Wyden Pippin.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### PRIZES.

We have before us the catalogues of many shows—shows local, agricultural, and open—and we find with hardly one exception that those offering third prizes bear off the palm in the number of entries. We find that exhibitions offering a first prize of 30s. and a second of 15s. do not have nearly so many entries, as a rule, as those giving three prizes of the value of £1, 10s., and 5s., although the loss to the first-named is 10s. in every class. We can readily account for this: So many of the various breeds are in the hands of certain exhibitors, who clear the decks at show after show and monopolise all the prizes and cups; the amateurs and exhibitors in a small way consequently do not enter nearly so readily at the exhibitions which give only two prizes, for they know both these prizes will probably go to certain yards. When, however, there is a third prize offered an extra chance of a place is held out for them; and though the prize may be a small one still it is a prize, and that to many is a great satisfaction, for it pays the entry fee if it does nothing else. This, however, brings up a subject which has been alluded to, as "pot hunting," with the remark that it "will surely kill the poultry classes, the same as we now find in the Pouters; and when amateurs, who are the backbone of the fancy, see the same names winning at every show they very naturally become disheartened, the demand for birds is stopped, entries decrease, and shows become bankrupt." We can endorse nearly every word of this; and though we fear that hardly anything will stop this "pot hunting," still we do think that by giving third and fourth prizes the evil may be greatly lessened, as more inducements will so be held out to those amateurs who are in a small way of business. The "swoopers," as we heard them called the other day, are perhaps cutting their own throats, for we think eventually the demand for high-class birds may decrease when the purchasers find that, even with expensive specimens, they can have no certainty of winning, as the vendors always have something kept back to turn up at every opportunity and to carry off the prizes wherever they are. This evil exists no doubt to a greater extent in some breeds than in others, but the committees of poultry exhibitions can do something to effect an improvement by rather increasing the number of prizes than the value of them; for the actual number of prizes in a schedule

of the present day is much as it was ten years ago, while the number of exhibitors, we should suppose, is considerably more than ten times the number it then was, for every single variety now boasts of a perfect host of admirers. We believe that if the shows took to giving third prizes always, and even fourth and fifth prizes—supposing, too, at first it had to be done at the cost of lessening the value of the first prize—that the committees would be repaid in a very marked way.

Take the Show of Swindon, for example, held a week or two back, and see what a surprising number of entries they had in every class—how their Hamburgs mustered better even than at some of the northern shows, and we are at once shown what a third prize does, which, too, was only 5s. in this case. Swindon had no attractive cups in the various classes—only four for the best pens in the Show among both poultry and Pigeons, the total value of which were only £9 9s., and which can count consequently as nothing in regard to the numbers of entries made. They had no large first prizes either, and yet we find an average of eighteen entries in a class throughout the poultry and Pigeons. This is a capital average, and the third prize was to a very great measure the cause of the success. Taking this late Show at Swindon, then, as an example of the triumph of the third-prize system, we find the total sum received in entry fees for the poultry and Pigeons comes to about £127, while the money spent in prizes comes only to £88; which, too, is supposing that the four cups are given in addition to the prize money. The balance, then, is £44 to the good in entrance fees alone; and we venture to think, that had there been only two prizes of £1 and 10s. the Committee would have been lucky to find that the entrance fees had paid the money expended in prizes. We pick out Swindon as being the last small show of the kind that we have attended; and though the marked courtesy of the officials there may have something to do with the support this Show receives, still we are sure that their third prizes brought the main success.

There are some classes, too, at all shows where it is impossible to do justice with even three prizes to award. Take for example a variety class, where perhaps we may find Malays, Polanders, Sultans, Minorcas, Silkies, and so on, and all of nearly equal merit. The awards to a great extent in such cases have to depend upon the caprice of the judge, and no harsh words should ever be used in reference to the awards in such a class, for the judge is placed in a most difficult position. We would recommend committees, then, especially those who leave many of the more recognised breeds to tabernacle in the "refuge," to have in that class two first prizes, two seconds, and two thirds. We should find such a method of proceeding appreciated by judge and exhibitors, while the entries would come in accordingly. We know it has been recommended before, and in one or two instances carried into effect with success. We should like, however, to see it become general in the interests of the fancy at large.

Although we mentioned, a few lines above, that to enable a third or fourth prize being offered the first prize might be slightly lessened, still there should be no real occasion for this. Some weeks ago we mentioned a tariff for entrance fees in proportion to money spent in prizes, which we thought would answer all ends. We proposed that 8s. should be charged for a £1 first prize, and 1s. for every 10s. afterwards, which would make a 7s. entry fee for a £3 first prize. We still think this would be a very fair and proper scale of charge; and then if a third prize was given to the value of a quarter of the first prize, we believe that committees would find themselves less often in that disagreeable position which is frequently wont to be the case when the settling day arrives. Of course some shows have a great pull in being held in a good neighbourhood, where the station is a junction and the line of rail convenient for exhibitors; but it is the exhibitions that cannot hold out these inducements which should especially study to arrange their entrance fees and prizes in such a tasty way as to draw exhibitors from the well-beaten tracks—that is, if once it is determined to hold a show without losing money; for sometimes we see shows advertised to be held in perfectly inaccessible places, where success can hardly be expected under any circumstances. In conclusion, then, we would recommend committees always to give at least three prizes; for while they would reap the great returns the exhibitors would be pleased, and the arduous work of the judges to some small extent might be lessened in having more prizes to distribute among perhaps an even collection of birds.—W.

### BIRMINGHAM POULTRY SHOW.

THE *Midland Counties Herald* states that, "in consequence of the staff at the disposal of the poultry committee being entirely fresh to their work, several errors occurred in the labelling of the pens and in the despatch of the birds; but the Council hope that, after the efficient coaching which the clerks received at the hands of Mr. G. C. Adkins, Mr. Heape, Mr. H. Mapplebeck, and others, such mistakes will be avoided for the

future. One pen, marked 26, was wrongly labelled add, and the owner wished to claim the money, as he thought the bird would have been sold but for the error; but, of course, the Council could not hold themselves responsible, and he had to be satisfied to receive it back. Another pen, priced in the catalogue at sixty guineas, was unfortunately labelled 'reduced to two guineas,' immediately sold, and since despatched to the purchaser, who, it is hoped, will regard the transaction in the right light, and return the birds.

"In the hurry of despatching such a large number of baskets of poultry one or two of the labels were transposed, and a few people did not receive their own birds, but we believe all the mistakes have now been remedied."

[On such occasions all parties should act kindly, and do as they would be done by.—Eds.]

### DESPATCH OF BIRDS FROM SHOWS.

SURELY it would cause but little additional trouble to committees to have the pens belonging to one exhibitor collected at the close of the show and despatched together. The present system of sending off birds as they are packed, without the slightest attempt at order, and without reference to the place of destination, is productive of serious inconvenience and loss of time to exhibitors, not to mention additional expense.

Let me give my own experience. On a certain day three pens of poultry were due to return from a show not a hundred miles from home. I drove to the station to meet them, when I found that one pen only had arrived. Having put up my trap at the nearest inn I waited patiently the arrival of my birds. At length by the last train that night a second pen arrived, and I had to return home filled with dismal forebodings as to the fate of the third. However, on sending to the station the next day the missing pen was found to have arrived by a morning train, the birds not improved by their long captivity in the hamper. I should add that between the place at which the exhibition was held and the station at which the birds arrived there was no junction on whose broad shoulders the onus of responsibility could be laid. On another occasion four pens came from a show by four different trains; and these are not the only cases.

Now when I say that I live seven miles from a railway station the loss of time, inconvenience, and expense occasioned may be readily imagined. The use of double hampers to a great extent remedies the inconvenience. Still they have a limit of capacity, especially in the case of the large breeds, and there are shows whose committees are wedded to old customs and decline to adopt reforms. With the index which is appended to most catalogues in hand, a steward or stewards aided by porters might be told off to collect the birds of each exhibitor already packed in their hampers, and despatch them to their destination together. Much trouble would be saved to the railway officials at the overcrowded station; the birds would not be detained there so long in the draught and cold, and much anxiety would be spared to exhibitors like myself who have no poultry men to send with their specimens.—SUMNER PARSON.

[It would give very little extra trouble if committees would do as our correspondent wishes, and we know that it would increase the entries. We have heard more than one exhibitor declare he sends only in one class because his pens never came home together.—Eds.]

### CANTERBURY POULTRY SHOW.

WE have come a long way to see this far-famed town and its Poultry Show year by year rising to eminence. In spite of the Kentish snow, deeper this year by far than we have seen in many another county, well are we rewarded. The fanciers of the counties of Kent, Surrey, Sussex and Middlesex (for to these four counties is the Show confined) are certainly most successful and most enthusiastic, for in the generality of classes the display of birds is finer than we see in ordinary open shows. We rejoice that there are still some of these partially-class shows, for here are brought out birds not a whit behind many well-known winners whose owners have not the time or courage to send to the great contest. They are often peculiarly fresh and strong birds, are bought by great breeders, and throw vigour into their strains. The Corn Exchange is a well-lighted and ventilated building, and the temperature excellent. We would suggest that grit in the pens would be far better than sawdust, which the birds eat with their food and suffer from, and that maize should not be given them with such unbounded liberality.

*Dorkings*, especially Silver-Greys, are the specialists of this part of Kent. Fifty-five pens are shown of a high average of excellence. The Silver-Grey classes are the best, and the five-guinea cup for the best pen in the four first classes is justly awarded to a magnificent adult pair of this breed belonging to Mr. O. E. Cresswell. The adult Coloured birds are not a good class; the prizes are well bestowed, but the first-prize cock has



an ugly short fourth claw on one foot. The Coloured chickens (fourteen entries) are very good; the cockerel in the first-prize pen is a capital bird, and so is the pullet in the second. In the class for adult Silver-Greys the cup birds are very perfect all round, the second fair; the third wrongly placed, as the cock has six toes on both feet. The first-prize pen of chickens contains a magnificent pullet, but the cockerel has a partially white sickle—a glaring fault. The second prize is a mistake; the pullet is very red in wing, and both birds have sooty feet; third are fair. Major Plummer's highly-commended cockerel is a very promising bird. *Any other variety.*—Why this class may not compete for the cup we cannot see. Nine pairs of Whites and one of Cuckoos are shown, and we think the class excellent. The cockerel in the first-prize pen is spotlessly white and will make a huge bird. We did not like the second Whites, their combs are not good and their feet not white; we should have put Mr. Boissier's pair second; good single-combed Cuckoos are third. *Spanish* are not many. In the class for adults the first-prize cock is good, mated with a poor hen; and in the second-prize pen the reverse is the case. In the chicken class we admired the first and second prize birds. They are healthy and in good condition, with moderate development of face, and such birds as we should like to breed from. *Cochin-China.*—Mrs. Christy deservedly carries off the palm for Buffs. Her adult pair are first. We fear there must have been a mistake in their entry price (ten guineas), which seems low. They are grand in size and feathering, but not particularly sound in colour; the cock in the second pen is under-feathered but finely shaped. With her pair of chickens Mrs. Christy carries off the china jardiniers; they are a stupendous pair of birds, the pullet dark and evenly coloured. The third pen contains a fine cockerel. *Any other variety.*—Capt. Talbot is first in adults with a magnificent pair of Whites; the cock, however, reposes in an ugly way on his hocks—a position in which we think we have before seen him at shows. Second a well-shaped not large cock and a grand hen; the hen, too, in third pen is very fine. For chickens there are but three entries; fair Whites are first, and backward Part-ridges second and third.

*Brahmas, Dark.*—First in old birds are a fair cock and an exquisitely pencilled hen. Second a nice silvery cock. Third pen contains a cock out of condition; we should have put 111 (Angier) or 118 (Cresswell) in their place. In chickens the first prize contains a beautifully marked and shaped cockerel, though small. Second a fair pair, the pullet under-feathered. *Light.*—The cup goes to a fine pair of adults, their only fault being that the hen's leg-feathering is poor. Second are a large pair; the cock, however, very devoid of neck-marking. Third a smaller but very shapely cock and a handsome hen. In chickens Capt. Savile is first with a good pair, hardly well matched, for the cockerel is exceptionally light in hackle, the pullet very dark and a little spotted on the back. Second are a very large pair, the pullet again marked on back and not well feathered. Third a small hooked cockerel and a very handsome and clearly-marked pullet. In the class for pairs of pullets the clock for the best Dark pair goes to a pen most beautifully pencilled though narrow. First in Lights are a lovely pair, very white, finely shaped but not large. Second and third are also good Lights.

*Game, Reds.*—These classes moderate. *Any other variety.*—First (Foster) Piles, a good style of birds; but a much better pen was shown in the Red class belonging to Mr. Fitz-Herbert; his entries in the two classes having been transposed, owing, no doubt, to the double-basket system. First in Piles (Fitz-Herbert), a grand pen; cock very stylish, matched with a most racy-looking pullet a trifle narrow in the shoulders, otherwise exquisite. *Hamburgs.*—Spangles a moderate lot. Golden-pencilled a larger class with a few better birds. First (Dowker) a pretty pen and in good condition; second (Long) an extremely nice pen. Pen 265 (Hanson) contained a well-marked hen. Silver-pencilled.—(Long) first deserved their position. Second (Norton) also, had the cock been straight in the tail. *Houdans.*—Splendid classes, Mrs. Vallance being first with a pair that would have maintained their position in the largest competition. Messrs. Dring and Lake ran very closely for the second honours. In young birds Mrs. Vallance was again an easy winner. Second (Foster), a good hen. Third (Lake), we liked that gentleman's highly commended pen better. *Crève-Cœur.*—First (Stephens) a fine pair; second (Dring) contained a better hen. *Bantams.*—First and second (Marsh), we preferred the second pen in many points. Pen 297 (Anna), third, not up to the style that gentleman usually exhibits. 311 (Boutcher), pretty but moderate. Bantams, any other variety.—First (Marsh) good in style and colour, cock a trifle coarse in sickles. A good class of Black and White following, Black winning. The classes of *Geese, Turkeys, and Ducks*, with the exception of Blacks, were well supported. In the Black class there were but two entries, and one prize only was judiciously awarded.

*Pigeons.*—There we missed the name of Mr. Martin, who supported the Show so largely last year. Carriers, cocks.—First (Cooksey) a fine bird with good eye and wattle. Hen.—First-

and-cup (Gill) deserved his position. Second (Col. Hassard) a good bird. Pen 568 (same owner), highly commended, rather small, otherwise we preferred him. In the class for young birds some promising specimens were to be seen. The Pouter classes were unusually well filled. Dragons contained ten entries, Mr. Baker being first with a pair of Yellows of sound colour, Mr. Tegetmeier second with a pair of Blues. We should have been pleased to see his pen 625 also in the prize list. Jacobins were a good class. Tumblers not so well filled, the Almonds only mustering four entries. Turbits were a nice lot, and the competition very close. In Owls the prize went to the foreign variety. Fantails.—First and second were charming birds: Mrs. Dring was third with a nice pen. The Homing class of Antwerps was the largest in the Show; the performance of many of them, being announced in the catalogue, afforded a theme for discussion among the visitors.

*DORKINGS.*—Coloured.—1 and 2, R. Cheesman, Westwell. 3 and 4, C. Ratcliffe, Womenswold. *Chickens.*—1 and 2, R. Cheesman. 3, E. Rice, Dame Ours. 4, C. Ratcliffe, A. Rigg. *DORKINGS.*—Silver-Grey.—Capt. O. E. Cresswell, Early Wood. 2, Rev. T. E. Cato, Wyke, Wincage. 3, F. Cheesman. *Chickens.*—1, F. Cheesman. 2, J. Boulding, Fetham. 3, Miss Hogbin, Birlington, Margate. 4, Mrs. Waicher, Major Plummer.

*DORKINGS.*—Any other variety.—1, O. E. Cresswell. 2, J. Ivory & Son, Dorking. 3, A. Chalwin. 4, E. A. Boissier, Major Plummer. *SPANISH.*—1, H. Brown, Putney Heath. 2, J. Francis, Tonbridge. 3, C. W. Hammond, Ashford. *Chickens.*—1, A. Marchant, Fetham. 2, A. Howson, Streatham. 3 and 4, J. Francis.

*COCHIN-CHINAS.*—Buff or Cinnamon.—1, Mrs. A. Christy, Falconhurst. 2, G. P. Ladd, Canterbury. 3 and 4, W. White, Ridgeway, Canterbury. *Chickens.*—Jardiniers, Mrs. A. Christy. 2, T. W. Anna, Upland. 3, Mrs. A. Christy. 4, G. P. Ladd, L. Collard. 5, A. S. Paine, H. Stephens, G. Dowker.

*COCHIN-CHINAS.*—Any other variety.—1, Capt. G. F. Talbot, Edinham. 2, R. A. Boissier, Fenshurst. 3, Mrs. Brasse, Battie. 4, Mrs. White, Capt. G. F. Talbot. 5, Col. F. C. Hassard, Miss E. Mansel, H. A. Rigg. *Chickens.*—1, R. A. Boissier. 2 and 3, Col. E. F. Lake, Canterbury. 4, Rev. J. D. Peake, Laleham Vicarage, Chertsey. 5, W. Jacob, Shepherdwell, Dover. 6, J. Long, Ravenscroft, Barmet. 7, F. Lake, Dr. G. A. Angier, J. B. Lambier. 8, Rev. J. P. Wright, O. E. Cresswell. *Chickens.*—1, J. Long. 2, M. Sandford, Martin, Dover. 3, W. Jacob. 4, T. Harvey. 5, N. Edgill.

*BRAHMA ROOTS.*—Light.—Cup, Rev. J. M. Rice. 3 and 4, Capt. W. Saville. 5, E. Bird, Rev. E. T. Scott, G. Dowker. *Chickens.*—1, Capt. W. Saville. 2, H. Stephens. 3, F. Cheesman. 4, Rev. J. M. Rice. 5, Bird. 6, Pitt, Capt. W. Saville. 7, W. Foster. 8, O. E. Cresswell.

*BRAHMA ROOTS.*—Light and Dark.—Pullets.—Cup, Capt. W. Saville. Chick. Miss E. C. Shuter. 3, Dr. G. A. Angier. 4, E. Bird, Lady Oxenden, W. Jacob. 5, H. Stephens, F. B. Cobb, Rev. J. D. Peake, J. A. Beames. *GAME.*—Black-breasted or other Reds.—Cup and 3, V. Sandford. 2, F. Ward. 4, J. Long, V. Sandford. 5, W. Foster. *Chickens.*—1 and 2, F. Ward. 3, W. Foster. 4, J. Ekan.

*GAME.*—Any other variety.—1, W. Foster. 2, C. J. Plumptre. 3, J. Chittenden. *Chickens.*—Cup and 2, G. H. Fitz-Herbert. 3, C. J. Plumptre. 4, W. Foster. 5, E. Rice. 6, J. Plumptre.

*GAME.*—Any other variety.—Cock or Cockerel.—1, G. H. Fitz-Herbert. 2, E. Akhurst. 3, F. Ward. 4, J. Chittenden. *HAMBURGERS.*—Gold-spangled.—1 and 2, J. Long. 3, J. Metcalfe. *Silver-spangled.*—1 and 2, J. Long. 3, A. Stokings. 4, J. R. Lambier.

*GAME.*—Black or Gold penicils.—Cup and 3, G. Dowker. 2, J. Long. 4, C. J. Plumptre. 5, A. H. Watson, J. Long, E. White, J. Chapman, G. Jackson, F. Hanson, O. Thompson. *Silver penicils.*—1 and 2, J. Long. 3, J. Long. 4, J. Long. 5, Houdans.—1, Mrs. Vallance. 2, F. Lake. 3, W. Dring. 4, F. Lake, W. Dring. *Chickens.*—Cup, Mrs. Vallance. 2, E. J. Foster. 3, F. Lake. 4, F. Lake, W. Dring. 5, Mrs. Vallance, M. Sandford, P. Hanson.

*CRÈVE-CŒUR.*—1, H. Stephens. 2 and 3, W. Dring. 4, Miss A. Sharp. *GAME BANTAMS.*—Black-breasted or other Reds.—Cup and 2, W. S. Marsh. 3, T. W. Marsh. 4, J. E. B. Smith, W. Boucher. *Any other variety.*—Cup, W. S. Marsh. 2, F. Ward. 3, Master Sandford. 4, G. H. Fitz-Herbert. 5, J. Symonds, F. Akhurst, Jun.

*BANTAMS.*—Black or White, Clean-legged.—1, J. Ware, Jun. 2, Mrs. Lambert. 3, W. H. Williams. 4, W. White, Lady Oxenden, J. R. Lambier, C. W. Gwynne. 5, G. P. Ladd. *Any other variety.*—1, Capt. G. F. Talbot. 2, H. Cooper. 3, R. A. Boissier. 4, L. G. Morrell, H. Stephens.

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*GAME.*—Black or White, Clean-legged.—1, J. Ware, Jun. 2, Mrs. Lambert. 3, W. H. Williams. 4, W. White, Lady Oxenden, J. R. Lambier, C. W. Gwynne. 5, G. P. Ladd. *Any other variety.*—1, Capt. G. F. Talbot. 2, H. Cooper. 3, R. A. Boissier. 4, L. G. Morrell, H. Stephens.



**GAME.—Any other Variety.**—1, H. C. & W. J. Mason. 2, R. Walker, Wood



**PIGEONS.**  
**ROUSERS**.—1 and 2, F. W. Zurborst. Ac, J. K. Milner.  
**CLARETS**.—1 and 2, W. S. Rutherford, Dublin. 2, J. Stanley, Blackburn.  
**TURKISH**.—1, F. W. Zurborst.  
**BARNS**.—1 and 2, W. G. Henry.  
**PASTELS**.—1 and 2, W. G. Henry.  
**JACOBINS**.—1 and 2, W. G. Henry. 2, F. W. Zurborst.  
**TURBANS**.—1 and 2, W. G. Henry.  
**TURKISH**.—1, F. W. Zurborst.  
**OWLS**.—1 and 2, W. G. Henry. 2, J. Holloway.  
**ROMING PIGEONS**.—1, J. Stanley. 2, F. W. Zurborst. Ac, J. K. Milner; J. Stanley; W. G. Henry. 2, W. G. Henry; F. W. Zurborst.  
**DRAGONS**.—1 and 2, J. Stanley. 2, J. K. Milner (2); J. Stanley; W. S. Rutherford; W. G. Henry (2); F. W. Zurborst (2).  
**NUSS**.—1 and 2, G. W. Fante, Sandymount.  
**MAORIS**.—1, F. W. Zurborst.  
**ANY OTHER VARIETY**.—1, F. W. Zurborst. 2, Mrs. O'Reilly, Dundalk. Ac, W. Rutherford, Dublin; J. Holloway; J. K. Milner.  
**SHILLING CLASS**.—1, W. Rutherford. 2, W. G. Henry. Ac, J. K. Milner; W. G. Henry.  
**JUDGES**.—Mr. J. Dowling, Plas View, Blackrook, Co. Cork; Mr. E. Hutton, Colymbrian House, Pudsey; Mr. O. F. Staunton, Mandevilla, Foxrock.

### SOUTH DURHAM AND NORTH YORKSHIRE POULTRY SHOW.

THIS was held at Darlington on the 8th, 9th, and 10th inst. The following is the award of prizes:—

**GAME FOWLS**.—Black-breasted Red. 1, Mrs. J. Day, Barnham. 2, G. Hall, Kendal. 3, A. E. Robinson, Sunderland. Ac, G. Hall; Mrs. M. J. Nelson. Any other variety. 1, J. H. Robinson. 2, H. H. Nowbitt, Rotherham. 3, J. O'Connell, Sunderland. Ac, E. Brownley, Kilsalt. Any variety. 1, G. Hall, Kendal. 2, Mrs. J. Nelson. 3, W. Wardle, Newcastle. 4, E. Brownley. Ac, H. Belden; A. Hagden, Swinley.

4, E. Coates, Eastbourne. Ac, J. Radler; R. Ball, Caldwell; Messrs. Blackburn and Maynard, Northampton; S. Lucas, W. Bailey, Darlington; W. Bullock, jun., Prescot; T. Watson, Blackwall; R. N. Hopkinson; L. Duggan, Elmwood; J. Graham, Darlington; Miss Jaques, Keston; G. B. Ball, Caldwell; Mrs. Smith; G. Foulmer; E. Barker, Stokesley; T. F. Carver. 2, Handerson and Wardle, Burnoporton.

#### PIGEONS.

**POURTRIS**.—1, B. C. Blacklock, Sunderland. 2, E. Horner, Leeds. Ac, E. Beckwith, Sunderland. Hens. 1 and 2, B. C. Blacklock. 3, E. Horner.  
**CLARETS**.—1, E. Beckwith. 2, J. Thompson, Singley. Hens. 1, H. Yardley, Birmingham. 2, E. Horner. Ac, E. Beckwith; W. G. Harrison, Darlington.

**PASSENGERS**.—1, W. G. Harrison. 2, W. Smith, Walton-on-Hill. Ac, W. Smith, M. Horner. 2, T. Putnam, Darlington; W. G. Harrison.  
**TURKISH**.—1, H. Yardley. 2, G. Beckwith. Ac, T. Horner, jun., Ripon. Any other variety. 1, E. Beckwith. 2, H. Yardley.

**PASTELS**.—1, J. Walker, Newark. 2, J. F. Lovelidge, Newark. Ac, J. Walker; H. Yardley. 3, J. F. Lovelidge; H. C. Bowman, Manchester. Any other colour. 1, H. C. Bowman. 2, H. Yardley. Ac, E. Beckwith.

**TURKISH**.—1 and 2, E. Beckwith. Ac, G. F. Umpleby, Houghall.  
**BARNS**.—1, E. Horner. 2, A. T. Anderson, Edinburgh. 3, E. Grant, Stapleford.  
**JACOBINS**.—1 and 2, J. Thompson. Ac, T. Laws, Northgate; E. Horner. 2, G. Alderson.

**TURBANS**.—1, E. Horner. 2, T. S. Stephenson, Beverley. Ac, G. Alderson; J. Canfield, York; J. P. Carver. 3, J. Dewhurst, Appley.  
**OWLS**.—English. 1, W. E. Lee, Nantwich. 2, J. Thresh, Bradford. Ac, J. J. Wilson, Darlington; T. Cumber, Houghton; G. Mitchell, Hovingham Lodge; M. S. Temple, Benham. W. E. Lee. Foreign. 1 and 2, G. Alderson. Ac, A. T. Anderson.

**NUSS**. 1, J. Young, Bishop Auckland. 2, T. P. Carver.  
**ANY OTHER VARIETY**.—1 and 2, M. Ord, Sedgefield. 3, E. Wilson, jun., Newcastle. Ac, E. Wilson, jun.; E. Horner; A. T. Anderson.

**SHILLING CLASS**.—1, M. Harrison, Yarm. 2, G. Sadler. Ac, J. G. Patterson, Gateshead. 3, W. G. Harrison, Darlington; J. S. Robinson, Darlington; G. Alderson; E. Horner; A. T. Anderson.  
**HENS**.—1, J. J. Rindle, Darlington.

#### RABBITS.

**L'F'RAKED**.—Buck or Doe. 1, A. Robson, Mortons-on-Swale. 2, J. Munro, Newcastle. 3, T. & E. J. Fell, Blackburn. Ac, J. S. Robinson, Darlington. 4, J. Lynn, Middlesbrough.

**BULBULAR**.—Buck or Doe. 1, B. Greaves, Grimsby. 2, W. Hillis, Darlington. Ac, W. H. Poole, Darlington. 3, J. Bowman.  
**SILVER GRAY**.—Buck or Doe. 1, W. Hillis. 2, A. Canby, Barton-on-Humber. 3, J. Hillis, Huddersfield. Ac, J. Hogg, Darlington. 4, J. S. Robinson.

**HIMALAYAN**.—Buck or Doe. 1, W. Smith, Darlington. 2, J. Hillis.  
**ANGORA**.—Buck or Doe. 1, H. Swetnam, York. 2, J. Jones, Fulwood. 3, H. Swetnam. Ac, W. Stappan, Eaglescliffe. 4, W. Bowes.  
**SHILLING CLASS**.—1, J. S. Robinson. Ac, F. Linley, Darlington. 2, J. Hillis, Huddersfield.

**JUDGES**.—Poultry: Mr. J. Dixon, North Park, Clayton, Bradford; Mr. J. H. Smith, Skelton, near York. Pigeons: Mr. W. B. Tegetmeier, Finchley, London. N. Rabbits: Mr. A. Hudson, Hull.

### SWANSEA SHOW OF POULTRY, &c.

THIS was held in the Swansea Market on the 9th inst. The following is the list of awards:—

**DOCKINGS**.—Cap. E. Leybom. 2, E. Barnett. 3, Mrs. H. H. Vivian. Ac, W. Brown, H. Edmonds, Mrs. H. Vivian, Mrs. B. P. Bidder, J. Harris.

**SPRING**.—1 and 2, T. Moore. 3 and 4, Mrs. A. L. Scott. 5, E. Johns.  
**GAME**.—Black Red. 1, E. Pearson. 2, W. H. Stagg. 3, D. Morgan. Ac, J. T. Brown, J. P. James, O. John. Brown Red. 1, J. T. Walton. 2, J. Gosh. 3, J. T. Brown. 4, W. Grant. Ac, J. H. Jenkins, H. M. A. Biddle, W. T. Wilson.

**WHITE**.—1 and 2, E. O. Phillips. Any other variety. 1, E. Winwood. 2, J. T. Walton. 3, D. W. J. Thomas. Ac, D. W. J. Thomas; J. T. Brown (2).

**COCHINS**.—Buff or Cinnamon. 1, W. H. Smith. 2, A. Darby. 3, J. Bloodworth. Ac, S. E. Harris, E. Winwood, B. P. Bidder. Any other variety. 1, D. Lewis. 2, E. Wingfield. 3, E. P. Charles. 4, Mrs. B. P. Bidder. Ac, G. Bloodworth, A. Darby, J. Bloodworth.

**HAMPSHIRE**.—Golden-spangled. 1, T. E. Jones. 2, G. & J. Duckworth. 3, Mrs. G. M. Rolfe. Ac, J. Carr. Mrs. G. M. Rolfe. J. Lott. Silver-spangled. 1, J. Carr. 2, Mrs. G. M. Rolfe. Ac, Mrs. H. H. Vivian, J. Long, R. L. Williams.

**HAMPSHIRE**.—Gold-pencilled. 1, G. & J. Duckworth. 2, Mrs. G. M. Rolfe. 3, G. Pasham. Ac, Mrs. H. H. Vivian, W. Clayton. Silver-pencilled. 1 and 2, T. E. Mitchell. 3, J. Carr.  
**HAMPSHIRE**.—Black. 1, Mrs. H. H. Vivian. 2, J. Nicholson. 3, Stott and

A. Brooks. 2, T. A. Dean.  
ton, T. Symons, M. Anstie.

S. J. Andrews. vhs. F. F.  
Bentley. c. R. Pearson.  
D. O. Wingfield. 2, J.  
Glover. c. O. Holloway.

Walton. 2, W. T. Lovering.  
Pearson. E. & A. Farring-  
ton. Pallett. 1, J. Cook. 2.

S. J. Hodges. M. Mrs. H.  
Mrs. Lewis. 2, Mrs. E. J.  
H. Vivian. R. E. Roman.

2, Mrs. Vivian. vhs. Mrs.  
W. James.  
K. F. Bladder. c. Rev. N. J.

W. Bevan vhs. S. W.  
M. Kells. C. Bloodworth.  
W. Kynch. R. Pearson. J.

Smith. 2, S. W. Thomas.  
John. Hens. 1, E. Leake.  
Williams. Mrs. G. M. Kells.

#### PIGEONS.

CARRIERS.—Cock.—1, J. James. 2, W. H. Smith. 3, P. R. Spencer. 4, W. J.  
Washburn. W. Phillips. G. Bentley. Hen.—1, P. R. Spencer. 2, R. Pike. 3, W.  
Phillips. vhs. T. F. Phelps. 4, W. H. Smith. G. Bentley.

POULTRY.—Cock.—1, G. Holloway. 2, W. Notlage. 3, W. H. Smith. 4, J.  
W. Morris. P. R. Spencer. W. G. Davies. Hen.—1, P. R. Spencer. 2, G.  
Holloway. 3, W. Notlage. 4, P. R. Spencer. C. R. Pike.

TUMBLERS.—Short-faced Almond.—1, W. Notlage. Short-faced, any other  
variety.—1 and 2, P. R. Spencer. 3, J. W. Morrison. 4, T. F. Phelps.  
ANTWERPS.—1 and 2, P. R. Spencer. 3, J. F. Harvey. 4, R. Pike.

JACOBI.—1, W. Notlage. 2, R. Pike. 3, T. F. Phelps.  
FANTAILS.—1 and 2, P. R. Spencer. 3, G. H. Gregory. 4, R. Pike. W.  
Morris.

BARDS.—1 and 2, P. R. Spencer. 3, W. G. Davies.  
TUMBLERS.—1, P. R. Spencer. 2, T. F. Phelps.  
TURTLES.—1, G. Packham. 2, G. H. Gregory. 3, C. W. Washbourne. 4,  
P. R. Spencer.

OWLS.—1, W. Notlage. 2, A. J. Barnes. 3, P. R. Spencer. vhs. F. Stedie.  
ho. T. F. Phelps.  
MICE.—1, F. Stedie. 2, R. Pike. 3, Miss A. Brooks. 4, G. Packham. M.  
Bridges. 6, F. Stedie.

MAGPIES.—1, P. R. Spencer. 2, J. W. Morrison. 3, W. G. Davies. 4, P. R.  
Woods. 5, W. J. Washburn. 6, W. J. Washburn.  
DRAKENS.—1, C. A. Pearson. 2 and 3, A. McKenzie. 4, G. Packham. W.  
Phillips. c. J. James.

ANY OTHER VARIETY.—1 and 2, R. E. Spencer. 3, A. Miles. 4, F. Stedie.  
c. J. W. Morrison.  
KINGSTON TUMBLERS.—Not less than Six.—1, R. Pike. 2, J. W. Morrison.  
3, G. Lewis. 4, W. H. Hughes. 5, P. R. Spencer. 6, C. Richardson.

SELLING CLASS.—1, R. Pike. 2, J. Western. 3, A. J. Barnes. Extra 1, G.  
Vivian. vhs. P. R. Spencer. 4, A. J. Barnes. J. James. c. W. Morris. R. H.  
Munt. G. Vivian (4).

JUDGES.—Mr. E. Hutton, Pudsey, Leeds.

#### BARTON-ON-HUMBER SHOW OF POULTRY, &c.

This was held on the 8th inst. The following are the Judges' awards:—

GAMES.—Black, Red, or any other Red.—Cup and 1, W. H. Adams, Beverley.  
2, R. Glasby, Gwilt. 3, H. G. Westoby, Sheffield. 4, W. G. Waters, Eatham.  
Any other variety.—1, W. G. Waters. 2, W. H. Adams. 3, J. Oseroff, Ilkerton.  
c. J. Stamford, Newwood.

GAMES.—Any variety.—Cock.—1, W. H. Adams. 2, W. G. Waters. 3, J. Walker.  
Hen.—1, W. H. Adams. 2, W. G. Waters. 3, J. Oseroff. 4, A. C. Bradbury.  
Nottall; R. J. Berjeant, Thornton Abbey; G. Carter, Sandhill House; J.  
Oseroff.

GAMES BATTLE.—Black or Brown Red.—1, T. Dawson & Son, Bawtry; 2, F.  
Boit, Staincliffe. 3, R. Newbitt, Epworth. 4, J. Walker, Frickney; A. C. Brad-  
bury; W. H. Adams. c. W. G. Waters. Any other variety.—1 and 2, R. Newbitt.  
3, T. Dawson & Son.

BATTLE.—Any variety but Game.—1, Holmes & Deane, Driffield. 2, W.  
Maharajah, York. 3, W. Bycroft, jnr., Ryehill. 4, R. Foster, Mablethorpe.  
R. H. Ashton, Moulton; J. Staley, North Collingham; Blaisey & Blandford,  
Driffield.

BATTLE.—Any variety.—Cock.—Cup, J. H. Stretch. 2, J. Oseroff. 3, T. Daw-  
son & Son. 4, J. Walker. 5, A. C. Bradbury; J. Oseroff. Hen.—1, W. H. Adams.  
2, R. Newbitt. 3, J. Oseroff. 4, J. Wicks, Appleby; W. Smith, South Ferryby;  
J. Oseroff.

SPANISH.—1, R. Newbitt. 2, R. Hunter, Louth.  
DORSET.—1, W. G. Waters. 2, J. Chester, Thorne. 3, Simpson & Dodds,  
Bedale. 4, T. Morris, Ulsby; Simpson & Dodds; C. J. Young, Driffield; W.  
Morritt, Gole.

BREHAN.—Dark.—1, J. Wells, Winterton. 2, G. Thompson, South Ferryby.  
3, J. Harvey, Louth. Light.—2, R. Taylor, Alford.  
OCHERS.—1, A. Spencer, Driffield. 2, W. G. Waters. 3, J. Payne.

HAMBOURG.—Gold or Silver-pencilled.—1, W. H. Adams. 2, C. W. Gibbs.  
Barton Bridge. Any other variety.—1, G. Bacon, Lincoln. 2, J. Kellott, Ouse.  
3, Holmes & Deane. 4, W. G. Waters.

FRENCH.—Any variety.—1, J. Wicks. 2, Mrs. Cross, Brigg. 3, C. W. Briggs.  
ANY OTHER VARIETY.—1, A. & W. H. Silvester, Sheffield. 2, A. C. Bradbury  
(Malays). 3, C. Bywater, Louth (Go'd Poland).

SELLING CLASS.—1, J. Smith, Lincoln (Hamburgers). 2, A. Shepherd, Beverley  
(Light Brahma). 3, W. Hens (Speckled). 4, J. Hoppens, Newark-on-Trent  
(Darkwing); T. Smith, South Ferryby (Black Red); W. G. Waters (Brahma,  
Game, Orville-Cover); R. Newbitt.

SELLING CLASS.—Chickens.—1, J. Constable, Walcot (Light Brahma); W. H.  
Adams (Game). 2, Simpson & Dodds (Buff Orpington). 3, Mrs. Cross (French);  
T. Smith, South Ferryby (Black Red Game); W. G. Waters (Game); J. Harvey  
(Dark Brahma); R. Newbitt (Black Spanish).

GUINIA FOWLS.—1, W. Hens, Beaumont. 2, C. J. Young. 3, E. Small,  
Barrowden.  
DUCK.—Brown.—1, C. J. Young. 2, R. Parkinson, Harlborough. 3, E. Hibbit,  
Louth. 4, T. Morris; G. F. Fenner, Kirby Moorside. Appleby.—1, A. J.  
Constable, Marton. 2, W. Hens. 3, A. C. Bradbury. Any other variety.—1  
and 2, A. & W. H. Silvester. 3, A. U. Bradbury.

#### PIGEONS.

POULTRY.—Cock or Hen.—1, 2 and 3, J. Baker, New Bridge. 4, R. North,  
Leeds.  
CARRIERS.—Cock or Hen.—1 and 2, J. Baker. 3, R. O. Stretch. 4, G. Chester,  
Boston; J. Baker.

WARR.—Cock or Hen.—1, A. Ball. 2, J. Baker. 3, E. A. Thornton, Hull. 4,  
C. Brown, Sheffield.

OWLS.—Cock or Hen.—1 and 2, J. Baker. 3, T. H. Stretch.  
TUMBLERS.—Cock or Hen.—1, J. Baker. 2, A. Ball. 3, E. A. Thornton, Beverley.  
4, E. A. Thornton. A. & W. H. Silvester. J. Baker.

JACOBI.—Cock or Hen.—1, 2 and 3, J. Baker. 4, J. F. Loveridge.  
TUMBLERS.—Cock or Hen.—1 and 2, J. Baker. 3, W. H. Adams. 4, W. H.  
Adams. A. & W. H. Silvester. J. Baker.

FANTAILS.—Cock or Hen.—1, C. Brown, Sheffield. 2 and 3, J. Baker. 4, J. F.  
Loveridge.  
ANTWERPS.—Cock or Hen.—1, E. Glasby. 2, J. W. Stansfield, Halifax. 3, W.  
H. Watson, Dewsbury. 4, C. E. Bannister, Worcester.

DRAKENS.—Cock or Hen.—1, R. Woods, Mansfield. 2, 3 and 4, J. Baker.  
ANY OTHER VARIETY.—Cock or Hen.—1 and 2, J. Baker (Trompeters). 3, R. E.  
Stephenson (Nuns). 4, E. North, Leeds; J. Ashley, Hull; A. & W. H. Silvester;  
R. Glasby (Wallow); A. Ball.

SELLING CLASS.—Cock or Hen.—1, J. Baker. 2, A. & W. H. Silvester (Barb).  
3, E. A. Thornton.  
TUMBLERS.—Pair.—1, J. Baker. 2, R. Glasby (Antwerp). 3, J. Wells,  
Winterton (Turk); J. F. Loveridge; A. Catty, Barton-on-Humber (Owls);  
A. & W. H. Silvester.

#### CAGE BIRDS.

RELIGIOUS.—1, W. North, Pocklington. 2, J. S. Petch, Hull.  
MORRIS.—1, G. & J. Mackley, Norwich. 2, J. E. Harrison, St. Ives.  
ANY VARIETY OF MARRAS BIRDS.—1, W. North. 2, J. S. Petch, Stapenhill, Burton-  
on-Trent.

MULL.—1, J. Moore, Boston. 2, W. North.  
LIMBER OR GOLDFINCH.—1, W. North. 2, G. H. Smith, South Ferryby, Barton-  
on-Trent.  
YOUNGER BIRDS.—Cup and 1, J. Coker, Hull. 2, Mrs. Cross, Brigg; A. Hill,  
Barton-on-Humber.

CORNET ON TURKISH.—1, G. & J. Mackley. 2, J. Moore.  
LOP-EARED.—Buck or Doe.—1 and Cup, T. Schofield, jnr., Chesham. 2 and 3,  
J. Baker, Louth. 4, R. Foster, Mablethorpe.

#### RABBITS.

SILVER-GRAY.—Buck or Doe.—1, E. R. Smith, Boston. 2, R. Greaves, Cleas-  
thorpe. 3, W. Russell, Hull. 4, T. Schofield, jnr.; J. Baker; G. Johnson.  
Wendell, Kettering.

DUTCH.—Buck or Doe.—1 and Medal, Mrs. H. Pickworth, Moulton Marsh.  
2, W. Richardson, York. 3, R. Greaves. 4, G. Johnson.  
HIMALAYAN.—Buck or Doe.—1, T. Schofield, jnr. 2, E. R. Smith. 3, A. W.  
Whitehouse, Northampton. 4, Miss A. Patinson, Brigg; G. Johnson; W.  
Adams, Ipswich. c. J. Noble, jnr., Grimby; R. Robinson, Darlington.

BLU-GRAY.—1, 2, 3 and 4, R. Greaves. 5, G. Johnson. 6, J. G. Abild,  
Grimby.  
SELLING CLASS.—Buck or Doe.—1, T. Schofield, jnr. 2, Mrs. H.  
Pickworth, Moulton Marsh. 3, R. Greaves. 4, J. Baker.  
SELLING CLASS.—Any other variety.—Buck or Doe.—1, J. M. Atkinson, Alford.  
2, E. R. Smith. 3 and 4, G. Johnson.

JUDGES.—Mr. W. Cannan, Bradford; Mr. J. Hainsie, Hull;  
Mr. A. Hudson, Hull.

#### EDINBURGH CHRISTMAS CLUB POULTRY SHOW.

This was held on the 8th, 9th, and 10th inst. Awards of the Judges:—

SCOTCH GEESE.—Cock.—1, Clarkson & Hamilton, Carlsruhe. 2, W. Hutton,  
Lindisburgh. 3, J. Gray, Carlsruhe. 4, J. Young, J. Altkan, W. Lindsay, E. B.  
Marshall. c. W. Frew & Co., J. Beery. Fantails.—1, J. Shalke, Dyrce. 2, W.  
Watson, Abington. 3, A. B. Paterson, Carnoustie. 4, J. Young, J. Gray,  
Clarkson & Hamilton, H. B. Marshall. c. J. Young.

SCOTCH GEESE.—Cocks.—1 and Cup, H. B. Marshall, Glenhove. 2, W. Gird-  
le, Hema. 3, J. Clark. 4, W. Wedd. c. D. Adams.  
L. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

SCOTCH GEESE.—Cocks.—1 and Cup, H. B. Marshall, Glenhove. 2, W. Gird-  
le, Hema. 3, J. Clark. 4, W. Wedd. c. D. Adams.  
L. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

SCOTCH GEESE.—Cocks.—1 and Cup, H. B. Marshall, Glenhove. 2, W. Gird-  
le, Hema. 3, J. Clark. 4, W. Wedd. c. D. Adams.  
L. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

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**Barnesley.** *See* J. A. Walker, S. Young, T. Goughly, D. Harley (5). *Hens*—1 and 2, J. A. Walker, S. D. Harley.

**Bramham.** *Cockrels*.—1 and Cup, W. Hinchson. 2, R. Barr, Burnfoot. 3rd, R. Somerville. 4th, R. Barr. *Murray*. 5, D. M'Beck. *Pullets*.—1 and Cup, R. Somerville. 2, Edinburgh. 3 and 4, R. Barr. 5, Mrs. Houldsworth, Colne.

**Wickham.** *See* J. Norrie.

**Warrington.** *Cocks*.—1, T. Nicol, Alton. 2, R. Barr. 3, R. Waugh. 4, W. Paterson. *Hens*.—1 and 2, R. Somerville. 3, J. Norrie. 4, A. Gray, Mrs. Houldsworth. 5, J. Bishop (4).

**Hammonds.** *Gold or Silver-spangled.*—*Cocks*.—1 and Cup, J. Merton, Choppington. 2, H. Stanworth. 3, W. R. Park. 4, J. M. Campbell, W. R. Park. 5, Bickard (5). *J. Robinson.* *Hens*.—1 and Cup, 2, Bickard, Bickard. 3, J. M. Campbell, W. R. Park (5). 4, D. M'Leachlan, J. Bickard (5). 5, J. Robinson.

**Hammonds.** *Gold or Silver-spangled.*—*Cocks*.—1, A. Glen, Paisley. 2, D. Chayne, Morpeth. 3, W. Linton. 4, C. E. Brown, W. R. Park. 5, Bickard. 6, W. M'Beck. *Hens*.—1, W. R. Park. 2, J. Stoddard, Haggart Gate, Colne. 3, D. Chayne. 4, R. Logan, J. Allan, A. Pratt, J. Taylor.

**Game Bantams.** *Black or Brown Red.*—*Cocks*.—1, R. Brownlie, S. A. Walker. 2, J. Anderson. 3, W. Robertson, J. M. W. Ferguson, W. Hattie. *Hens*.—1, J. R. Fletcher. 2, R. Adam, Blair Adam. 3, J. Anderson. 4, R. Brownlie, R. L. Horne.

**Game Bantams.** *Any other variety.*—*Cocks*.—1 and Cup, R. Brownlie, Kirkcaldy. 2, J. R. Fletcher. 3, A. Killgour. *Hens*.—1, R. Brownlie. 2, D. M'Beck. 3, J. Anderson. 4, J. R. Fletcher. 5, W. Robertson, J. M. W. Ferguson.

**Bantams.** *Any other variety.*—*Cocks*.—1, R. H. Ashton, Mottram. 2, W. Shaw. 3 and 4, A. Robertson. *Hens*.—1, A. Robertson, Kilmarnock. 2, R. H. Ashton. 3, J. Duffin. 4, J. D. Donald. 5, O. Gray.

**Any other distinct breed.**—*Cocks*.—1, R. Parsons (Poland). 2, W. R. Park (Silver Poland). 3, M. Tuld (Holland). 4, W. Gibb (Poland). 5, W. R. Park (Crève-Cœur). 6, J. Taylor (Poland). 7, J. Allan (Crève-Cœur). *Hens*.—1, T. Fullerton, Loames, Troon (Crève-Cœur). 2, W. Gibb (Poland). 3, W. R. Park (Silver Poland). 4, J. B. Brown (Crève-Cœur and Holland). 5, W. Gibb (Poland). 6, R. Parsons (Poland).

**Ducks.** *Speckled.*—1 and Cup, J. Walker. 2, W. Wallace. 3, R. Naismith. 4, Lord Polwarth. *Hens*.—1, J. Walker. 2, W. Wall. 3, D. Hardie. 4, J. A. Mather. 5, D. C. Froudford, D. Hardie. *Any other distinct breed*.—1 and 2, W. Shaw, Kilmarnock (Mandarin and Carolina). 3, Mrs. Pettigrew (Canadian). 4, J. Walker (5). 5, A. Bowie.

**Selling Class.**—*Cocks*.—1, J. Wyse (Cockin-China). 2, J. Anderson, Blair Gowie (Dorking). 3, J. Shields (Beech Grey). 4, J. Crombie, J. Ferguson, J. Wyse (Cockin-China). 5, J. M'Beck (Coloured Dorking). 6, J. Young (Brahma). *Hens*.—1, W. Wall. 2, J. T. Wall (Dorking). 3, J. Wyse (Cockin-China). 4, A. Robertson, J. Wyse. 5, R. Logan, J. M'Alpine, Miss M. Morrison.

**Turkeys.**—*Cocks*.—1, D. Annan. 2, J. Anderson. 3, W. H. Liddell. 4, Mrs. Cathcart, J. Walker, D. Hardy. 5, J. Allan, J. Curror. *Hens*.—1, J. Walker. 2, Mrs. Houldsworth. 3, J. Curror. 4, Mrs. Cathcart, D. Hardie. 5, J. Allan. *Guzzards*.—1 and Cup, J. Walker. 2 and 3, D. Hardy. 4, J. Anderson, R. Carmichael (5). 5, J. Allan (5).

### GUILDFORD SHOW OF POULTRY, &c.

THIS was held in the White Horse Hotel Auction Mart on the 19th and 14th inst. The awards are as follows:—

#### W. GOSWELL.

**Guzzards.**—1, W. Messenger, Wodsworth. 2, Mrs. Radclyffe. 3, T. Baker, Goddards. 4, T. Land, Tyng. 5, S. Hider, Woking. 6, W. Messenger.

**Turkeys.**—1, G. H. Langford, Lockport. 2, Rev. N. J. Kidley, Newbury. 3, Mrs. M. Marshall, Goddards. 4, F. Ward, Maidstone. 5, Mrs. Radclyffe. 6, Countess of Lovelace.

**Fowls.**—*Carriers*.—1, A. T. Skinner, Guildford. 2, F. Fawcett. 3, O. R. Crosswell. 4, J. E. Casper, Guildford. 5, A. T. Skinner. 6, O. R. Crosswell.

**Judges.**—Mr. J. Baily, Mount Street, London.

### PROTECTING AND FEEDING BEES IN WINTER AND EARLY SPRING.

It seems likely enough that we are going to have a winter of more than ordinary severity and of some duration, if we may judge from the gradual way it has been coming on and the steady increase of the cold. Bee-keepers, therefore, should be on the alert, and do what they can to guard against disaster and consequent loss from whatever cause.

Foremost to all persons whose stocks are well supplied with food is the due protection of them from excessive cold. Cover them over with any warm material that is to be had; straw is best for the bell-shaped hive. Make the harkles as thick as possible, and tighten the straws together with hoops of iron or wire, so as to shoot off all rain and melting snow. As for dry snow it is about the best natural protection the hives can have, and is as good as a warm nightcap to them. My bees being all in boxes I have had square or oblong caps of old thick druggist made to slip over them. These I make to fit close to the hives by tying them round with string. Take care at the same time to keep the entrances open, but narrow them as much as you can, taking care to allow at least two bees to pass out abreast, and ever and anon as soon as milder weather comes open them wide

and clear away all dead bees you can reach on the floorboard inside with the help of a bit of curved iron wire.

Next carefully watch the decreasing weight of your hives, and give the bees a little warm liquid food immediately on the return of warm open weather whenever, especially after a week's frost, they begin to fly abroad. Those persons who fed late before this frost began will find the hives thus fed in better health as a rule, and less liable to die of starvation, than stocks which are very strong in food but which have not been lately fed. The explanation is simple enough. In the former case the combs in the centre of the hive are well filled with their recent supplies; in the latter the bees in many cases will have devoured their stores at the centre where they are huddled together, and will often perish there of starvation from the impossibility of their bringing in enough food from their distant stores owing to the cold. This is oftentimes the secret of so many hives in spring being found to have perished, although there was plenty of sealed honeycomb in them. It will not be found amiss in such circumstances—I mean where there is any doubt on the point—to bring the hives in before a warm kitchen fire to pass the night in the warmer temperature. The entrance hole, of course, must be stopped, but ventilation given by means of perforated zinc plates or blocks. The grateful humming of the bees within will tell of the good work going on there. In a few hours they will have carried away into their nearer cells many pounds of that which is to them the staff of life. This may be done at any time in the coldest weather.

Besides this, we earnestly advise all stocks to receive a pound or two of honey or sugar syrup immediately on the first return of mild weather. Be ready with your food prepared for all such emergencies. We must have rich honey seasons coming. Is it not well to be always in readiness for them?—B. & W.

### BAR FRAMES.

THE question put by "ZENAS" is now occupying the attention of many bee-keepers and hive-makers in England—viz., "the placing of bars so as to prevent their being glued together by the bees." If so glued together, as is often the case, their

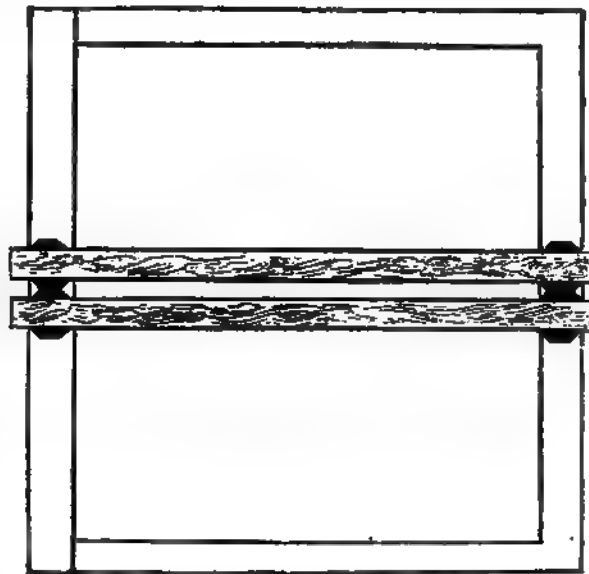


Fig. 118.

removal is somewhat provoking to the bees and dangerous to the bee-master. Many efforts have been made of late, and many are still being made, to prevent the bees from cementing the bars to the hive and making them easy of removal. Some of the efforts made have resulted in improvements. The making of bar-frames has been simplified, their price lessened, and their removal made more easy. The following sketch (Fig. 118) of two bars laid across the top of a hive, will enable "ZENAS" to form a pretty accurate idea of what we deem the best, most simple, and easily handled frames yet invented. The bars project beyond the hives half an inch, and the crown lid should project a little beyond the ends of the bars. The projections of the bars as seen on the sides of the hive (back and front), keep the combs half an inch asunder, which is about the proper distance.

"ZENAS" puts another question in these words, "Are hives on the moveable-comb principle intended for storing or for drain-





## WEEKLY CALENDAR.

Day of Month Week.		DECEMBER 23—29, 1875.			Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.	
Day.	Night.	Mean.	m.	h.	m.	h.	m.	h.	m.	h.	Days.	m.	a.		
23	TH		44.1	81.7	87.9	7	af	8	53	af	8	17	af	0	857
24	F		44.0	81.3	87.6	8	8	53	8	17	5	10	1	26	858
25	S	Microscopical (Quekett) Club at 8 P.M.	48.4	29.4	36.4	8	8	53	8	19	6	35	1	28	859
26	SUN	CHRISTMAS DAY.	48.2	31.4	37.8	9	8	54	8	88	7	11	2	29	860
27	M	SUNDAY AFTER CHRISTMAS.—ST. STEPHEN.	48.0	29.7	36.4	9	8	55	8	86	8	59	2	30	861
28	TU	Bank Holiday.	42.6	29.5	36.0	9	8	55	8	21	9	0	4	1	862
29	W		48.9	33.0	38.5	9	8	56	8	54	9	12	5	2	863

From observations taken near London during forty-three years, the average day temperature of the week is 48.4°; and its night temperature 30.8°.

## A CHRISTMAS GREETING.



CHRISTMAS has a wonderful power over an Englishman's mind and heart. In the dread Crimean winter twenty-one years ago, amid all sorts of miseries, our soldiers did their best to keep Christmas. Then there are the thousands of Englishmen with their feet to our feet in Australia, with a different sky above them, different stars to look at, no "Charles's Wain" over their housetops; they cannot as we do

"Watch the Pleiads, rising through the mellow shade,  
Glitter like a swarm of fireflies tangled in a silver braid."

Who, instead of looking

"On great Orion sloping slowly to the west,"

look on the Southern Cross. These our Australian brothers, emigrants from old England, with a sky above unlike our sky—with an earth beneath with its animals and birds so different to ours, and, harder still to bear, with a total change of seasons to live in: our summer their winter, our winter their summer; their midsummer day our midwinter time in feeling, and their Christmas day one of the hottest days of the year. A young man in North Queensland wrote to me last Christmas day in the words, "Here I am eating my Christmas plum pudding, and beating off the huge mosquitoes from my face; for in spite of the difference of weather, I would keep my Christmas day and think of the dear ones at home." Oh! what a power has Christmas over Englishmen. At the Reformation many feast days and holidays were abolished, and the "gospel of idleness" no longer preached; but Christmas remained, and remains dearer than ever—a holiday time, a social time, a time for pleasant greetings. This is well, but "the gospel of idleness" has of late years been too much preached again and over-much of holiday time talked of. Give the labourers and mechanics higher wages to meet dearer times; but as yet, in multitudes of cases, shorter hours of work have come to mean longer hours at the public house. Educate to a higher standard, and higher pleasures will be loved; but preach not too much the gospel of idleness of over-holiday-making, but cling and cleave to and keep rightly Christmas-tide, and greet lovingly all around you.

There is another way in which Christmas time may be viewed. It is the last part of the old year that is thought about. The year is about to leave us in these latter days of December, and so up comes Father Christmas and puts out his hand very cordially, seeming to say, "Well, if the year, O men! has not been a very good one, let us, nevertheless, part friends; let us shake hands and hope for a better." Truly the past year has not been a good one for the gardening world. A terribly severe winter did not bring us the wished-for early genial spring, but cold and wet, floods and storms; and then when summer months came, scarcely came summer weather. Not the glorious quiet warm time, scarce a leaf stirring, the trees knee deep in fern, the cattle standing in streams, the bright Geraniums budding and blooming, and glowing in

the sunshine, not growing for ever with huge leaves as this year.

"Father Christmas, we gardeners take your hand and press it warmly, and greet you kindly, but please speak to the clerk of the weather and provide a better year for us in the one that's coming."

Next let me turn to gardening advances. First and foremost this year has brought us the new edition of our Doctor's "Fruit Manual." This not only a standard work and showing such accurate knowledge and diligent research, but is so interesting. "Sir," said grand old Dr. Johnson, "Dr. Gollsmith will write a natural history and make it as interesting as a fairy tale." This is what "our" Doctor has done with fruit history. The book is on my shelf of favourites, and is already pencil-marked and thumbbed, and threatens to want binding from constant reading of it; and as with me so I doubt not with many others.

Fruit culture needs more attention than it receives, and from all classes. In farm and cottage gardens it is now common, even in very out-of-the-way places, to see standard Roses of named varieties and prize quality; but look at the Apple trees and other fruit trees of such gardens. These are generally very old, very cankered, very mossy—all the upper roots cut by the spade, and so the lower penetrating deeper and deeper, and the trees growing or declining worse and worse. Such trees too! so straggling, shading much ground, and injuring all crops; unsightly, half useless, scrubby ugly trees, but kept in the gardens because they have been there so long. Now, I hope in a few years to see pyramid fruit trees in such gardens—pretty trees, early-yielding trees, and trees that do not shade valuable land. Said a man of more than ordinary knowledge to a man in his forties who was thinking of planting fruit trees, "It is too late in life for you to do that." Indeed it is yet to the general world an unknown thing that Apples on the Paradise stock and Pears on the Quince stock produce fruit-bearing trees at once. "Plant Pears, plant for your heirs," that is old-world nonsense now. Plant them and gather the fruit yourself the year after next.

One great means of causing improvement in the humbler class of gardeners is for the upper classes—gentry, clergy, and others, to encourage district horticultural shows embracing many parishes. The one in which I take a personal interest in the district in which I live has in its progress gratified me much. At the first show four years ago the cottager classes were poorly filled, and the specimens were poor too, but four years have shown a great advance—the classes well filled, and the specimens far finer. They have shown a greater improvement than any other classes, but the fruit is still poor, the varieties of Apples and Pears the older and the commoner, and scarce a dish where beauty and utility were combined. This will continue to be the case until pyramid fruit trees find their way into the humbler gardens as choice Rose trees have already found places there.

The mention of Roses reminds me of another advance—the estimating the beauty of a Rose by its perfume.

Here is a return indeed to old days, and advancing by going back is often the truest advance. Three centuries since a Rose was chiefly valued for its perfume. "A Rose by any other name would smell as sweet," wrote Shakespeare. It was the scent and not the form that weighed with our forefathers, combined with medical properties. The older flowers are the sweeter flowers as a rule; and when the present Premier's heroine, Lady Colisande, in "Lothair," had a garden of scented flowers, they were almost all old-fashioned. Flowers are beautiful to look at, but the bouquet is doubly valued when the finely-chiselled nostril is gratified as well as the eye.

There is, too, another advance by going back which strikes one—namely, the revival of a love of button-hole bouquets, which our ancestors called posies. Says Christopher Marlow, writing in the sixteenth century, in the character of a shepherd singing to his love—

"I will make thee beds of Roses,  
And a thousand fragrant posies."

The fashion for button-hole flowers had well nigh died away. An old buck or two among the gentry kept to it, and a flower-loving peasant here and there appeared at church with a posy half as big as a Cauliflower, and one wondered any button-hole could carry it. But now the pretty custom has come back again; and in the heart of the City of London, specially on a Saturday afternoon, stand rows of flower girls proffering, and not in vain, a button-hole posy to the city clerks on their leaving their offices earlier, the posies being carefully taken and kept in water for the Sunday adornment.

Flowers of perfume are doubly valued as decorations if blended with a spray of graceful Fern. The cultivation of sweet-scented flowers is sure to advance, and we shall have again "many a Carnation feeding with summer spice the humming air." Bacon speaks of those who gather "flowers being withal sweet and sightly." The "sightly" has been too much regarded minus the "sweet."

But not alone do we in "our Journal" dwell on flowers and fruits. Many open the *Journal of Horticulture* for the latter columns chiefly, for to them the bird and the bee are more attractive than the fruit or the flower. Their pleasures arise from harmless hobbies. Well says a recent writer in a first-class periodical—"Of course, by becoming a hunter of rarities a great deal of money may be spent; but that is a pursuit which, however respectable, is generally most enjoyable when the means are limited. When Charles Lamb screwed up his courage to give a few shillings for an old dramatist, he had more pleasure of his bargain than the rich man who would give as many hundreds. As some people have found rat-killing as amusing as tiger-shooting, so the poor collector gets as much fun out of his pursuits as his rival with a bottomless purse. And the various forms of curiosity-hunting, whether the objects be the old masters, or rare books, or china, or autographs, or pigeons, are about equally interesting." These words I hold perfectly true. The poor man's hobby gives him as much pleasure as the rich man's—I am half inclined to think more, because the objects loved are fewer, and love concentrated is the strongest. If a rich man has been able to buy some grand picture, his joy is not much, if even as much, as when the fancier has obtained a long-desired bird which he holds lovingly in his hand with his eyes full of admiration and delight. It will be noticed that the writer above quoted mentions "pigeons." This would not have been the case a few years since, but our two great Shows in the two London Palaces have drawn an amount of notice upon the fancy which many provincial shows could not have done, for London leads thought and always will.

I hold, too, that, now wages are higher, the lower classes more and more need innocent hobbies for their spare hours, particularly as these are more numerous. If the unbending of the mind does not take an innocent turn there is more harm to be dreaded from idle than from working hours. The gospel of idleness is a baneful gospel—nay, no gospel, but bad news to men unless they can well employ these idle hours. Whether it is the town artisan or the country labourer—whether the temptation be the town's attractions or the country's dullness, there needs a safety-valve, an outlet for the lesser faculties. Happy that man who can turn to his garden and find his pleasure there; and it is best to have a hobby within a hobby—even in a garden some pet variety of fruit, or vegetable, or flower. If you have you will soon feel the advantage. But a garden all do not care for, and all cannot have. But a back yard may be peopled with birds—poultry or pigeons, or an

inner room be alive with canaries. If people live in the country and have not country tastes their life is apt to be dreary at times; but love and understand the book of nature—I ought to have written "understand and love," for love comes from knowledge—then you will never be unhappy.

I am fond of hearing and recording any acts of kindness; let me write down one which occurred within my own knowledge. Early in the bitter, bitter cold of the present year a clergyman with a large and grown-up family was stricken down in a few days. The news of death and the illness coming to many at the same time. They had been a family of garden lovers, thinking their home and their garden sweeter than aught else. There was a group of daughters most active among their poor neighbours, hard and warm-hearted workers. It so happened that the family removed from a sweetly rural spot to the thick air of a manufacturing town, where garden for them there was none. Each week their village neighbours took turns in sending to their late clergyman's widow and daughters a hamper of vegetables and fruit from their gardens, believing, and rightly believing, that no vegetables or fruit would taste half so sweet as those from their loved village. This went on from week to week till the village feast came round, and then the poor begged that the hamper might be double the size for them to enclose their offerings of flowers from their gardens—flowers the sweetest of all presents, and which the poorest cottage-dweller may offer, and the daintiest lady in the land be pleased to receive. Can you not easily understand, good reader, the joy the opening of that hamper would give? This posy from that tiny garden, cut from plants known to the receivers; here a bunch of Roses from a porch, there some Stocks from a wayside garden, all known, all remembered.

But I must hasten to a conclusion. What was the angelic greeting on the first Christmas morning? "Peace on earth and good will to men." When man was innocent and at perfect peace with all he lived in a garden; and though innocence is lost, yet peace is often found in a garden. Its little plot is the child's delight; his garden is often the old man's last love. Business is too much for him, that he has resigned. Travelling too wearying, that he has given up. He again, indeed, goes his journeys, but only in his easy chair, and prattles there of former scenes by land and sea. Company he cannot enter into, its late hours do not suit him, and conversation passes him, and the days of quick reply and keen intellectual talk are over. But there is something left him to enjoy—his easy-of-access, pleasant garden, where he may rest in sunshine or shade as he wills, and husband his strength and enjoy himself, watching and being interested in each crop as it ripens, each flower as it unfolds its blooming beauty. A garden is man's first love and his last. It promotes "peace," and an interchange or giving of its products creates "good will." Grand words, blessed greeting, "Peace and Good Will" sounding over Christendom, heard all over England! And may their meaning be better understood as each Christmas comes round. In the words of an American poet—

"I hear the bells on Christmas day  
Their old familiar carols play,  
And wild and sweet  
The words repeat,  
Of peace on earth, good will to men.  
The wrong shall fall,  
The right prevail,  
With peace on earth, good will to men."

—WILTSHIRE RECTOR.

## PLUMS.

PLUMS are so popular that not one word of eulogy is necessary to attract notice to them, or to promote their more extensive culture, otherwise than may unavoidably occur in describing the merits of some kinds that are not so well known as they deserve to be. Possessed of wonderful vitality, very prolific, perfectly hardy—such choice kinds as Transparent Gage ripening perfectly upon orchard trees in the north—not very liable to suffer from the attacks of noxious insects or blight, of easy culture, trees possessing all the luxuriance of a free, wild, unchecked growth, or amenable to pruning and training after the most severe rule of art (advantage, if any, being rather in favour of the untrained tree), that here also an elaborate cultural essay is uncalled for.

When I first began the culture of cone-shaped Plum trees it was with a strong impression that it was no easy matter to impart that form to them, and that a really handsome sym-

metrical specimen would be the exception rather than the rule. Most gladly, therefore, do I record results totally opposed to this erroneous idea of mine. The difficulty, if it occurs at all, does so at the beginning; and whenever a want of balance, arising from a weakly growth in the lower branches and excessive vigour in those near the top, is perceptible, it is invariably owing to a bad start, or, in plainer words, to the mismanagement of the tree in the earlier stages of its growth. A want of decision at the time of planting often leads to failure. Arbitrary rules have a mischievous tendency when applied indiscriminately, but in this instance it should be insisted upon that when a young Plum tree is not well furnished with strong branches at its base at the time of planting, its top must be sacrificed and the stem reduced to a length of 18 inches. Then, if the planting is well done, shoots will break forth during the first season of growth, and disposed in a manner to form a perfect tree. Thus do we lay the foundation and insure the success of our work; the central stem rises above its youthful rivals, putting forth other branches, tier above tier, till the structure is complete—a perfect cone. The formation from lateral growths of spurs clustering with fruit buds goes briskly forward, and a few brief seasons bring to the work its full reward in that best of all forms a full crop of fruit. Apart from this, the tree is really a reward in itself—a certificate of merit of no mean order—a symmetrical form that is always a pleasant sight, exemplifying economy of space with the maintenance of a just balance in every part.

Most kinds of Plum trees are so distinct in habit of growth and general appearance as to be easily recognised. I have closely observed these peculiarities, and will note a few of them in the following estimate of sorts.

**Green Gage.**—Of all Plums the Gages most worthily stand first, and our old friend the Green Gage is such a general favourite that it might not inaptly be quoted as forming an the common diversity of taste. It good qualities exception to are admitted by all. Some flourishing young pyramidal trees which came nicely into bearing this year have a clean, regular, free growth, somewhat slight, spreading with a gentle curve upwards. The fruit of this variety is, however, greatly improved with the age of the trees, of which I will quote an example on a future occasion.

**Purple Gage.**—A pair of fine symmetrical trees of this valuable variety have a more sturdy erect growth and more compact habit than the Green Gage. The branches are also more thickly set with spurs. The fruit has the full rich flavour of the green variety, is of similar form, and of an attractive mottled purple hue. It hangs well upon the tree, and may be kept in the fruit-room for some weeks in its slightly shrivelled condition with little loss of flavour, thus forming a most serviceable adjunct to the dessert in autumn.

**Bryanston Gage.**—These are strong vigorous trees, having a peculiar erect growth with very numerous spurs, having a close resemblance in general outline to Oullins Golden. The fruit, which is produced in great abundance, is very large—much larger than the old kind, greenish yellow in colour, and of most delicious flavour. An excellent Plum which all should grow.

**Transparent Gage.**—This is another of the large type of Gages. The fruit is pale yellow, tinged and mottled with red on the side exposed to the sun. It was ripe this season in the second week of September, and is so delicious that it has been termed "superior to all other Plums." Certainly its excellence in this respect is so great that it must satisfy the most fastidious palate. I have it trained to a wall and also in an orchard. The growth is strong and free, but the trees are hardly large enough to enable one to judge clearly of peculiarities of habit. Mr. Rivers says that this variety and Reine Claude Boddart are the finest of the Gages. This last kind and M'Laughlin's Gage I planted last season, but they have not yet fruited.

**Jodotne Green Gage.**—This variety has disappointed me. It is wonderfully prolific, and the fruit is handsome, of good form, and with so much blue colour upon the exposed side that its title of "green" strikes one as a misnomer; but it has so little flavour as to be positively insipid. I have either a spurious kind, or the assertion that it is equal in flavour to the old Green Gage is a mistaken one. A couple of pyramids which I have in cultivation under this name have a thin spreading growth, imparting a loose and somewhat ragged appearance to the trees, which are, notwithstanding, tolerably symmetrical.

**Oullins Golden.**—This has a very stout, vigorous, yet

compact habit of growth, well set with spurs, not at all spreading, but remarkable for the singular manner in which every branch springs directly upwards from the stem at an acute angle. It is probably owing to its excessive vigour the young trees are so much behind other sorts in producing fruit. The fruit is very beautiful, very similar in appearance to the Washington, a rich yellow tinged with crimson on the sunned side. A fine fruit of sweet and pleasant flavour, ripening early in August, but which may sometimes be seen in good condition as late as the first week in September.

**Royal Hâtive.**—I have heard this termed a good dessert Plum, but I have not found those which I have tasted at all equal to my standard. The trees are very handsome, with a distinct spreading habit, and a free growth of medium strength.

**Kirke's.**—The trees of this kind are of good form, and have a tolerably vigorous spreading growth, well furnished with spurs. My note of it in the fruit book for this year states that the fruit is large and slightly oval in form; colour deep purple, almost black, with a fine bluish bloom, sweet and juicy, but more valuable for cooking than for the dessert. Good crop. Trees vigorous.

**Belgian Purple.**—A tree of good form, with a free strong growth well set with spurs. It is a prolific sort, with dark purple medium-sized fruit, mottled with red and having an attractive bluish bloom. It is very juicy and rich in flavour, and is said to be ripe by the middle of August, but it was not ripe this season till the first week in September.

**Late Rivers.**—This kind surpasses all others in the vigour of its growth, quickly forming a large spreading tree. It is very prolific, and its sweet juicy fruit is highly valued for its lateness.

**Blue Imperatrice** is one of our most valuable late autumn Plums. Trained to a north wall its oval-shaped richly-flavoured fruit may be had in perfection very late, for it hangs a long time upon the tree. I like to plant it on a northern aspect with the Morello Cherry, both fruits being of the greatest value for the splendid supply which they afford throughout October.

**Early Rivers.**—A culinary Plum of great value, ripening early in July. Its tolerably large, oval, purple fruit is very sweet and juicy, and is produced in great profusion. The trees are very handsome and vigorous, with a free, strong, and erect habit of growth. Quite distinct from other kinds.

**Prince Englebert.**—Both the trees and the fruit which they bear are very distinct, the trees being remarkable for the sturdy proportions which they so quickly assume, and their close erect habit of growth. The splendid oval-shaped fruit is very large, of a deep purple colour with an attractive bluish bloom, and, what is more important, it is most valuable for all purposes of cooking and preserving.

**Denyer's Victoria.**—The growth of this deservedly popular sort has a spreading yet upward tendency, forming vigorous trees of symmetrical outline. It is very prolific, and the fruit makes a delicious preserve, and is one of our best cooking fruits. Red in colour, oval in form, and very sweet and juicy.

**Lafayette.**—This is a late September kind, forming handsome trees, is very prolific, and is so sweet and juicy as to be valuable both for dessert and cooking. A most useful sort, cropping well this year.

**Rivers's Early Damson.**—This forms a neat, compact, and well-shaped tree, the tolerably free growth being well furnished with spurs. It is very prolific, and is most valuable from the fact of its sweet and juicy fruit ripening so early in August.

**Cluster Damson.**—Doubtless so called from its extraordinary fertility, the branches being literally clothed with fruit in such dense clusters as to render the process of picking a somewhat tedious business. The growth is stout, vigorous, thickly set with spurs, interspersed with a few thorns in its young state; tree somewhat spreading and irregular in habit, and with dark-coloured bark. This kind and Early Rivers are those which I can recommend for giving an abundant early and late supply of fruit. Preference is frequently given to the Shropshire Damson for preserving, for which reason I have planted a dozen of it. They are forming pretty compact little pyramids, but there is a slender delicate habit about them that is in striking contrast to the sturdy vigour of the Cluster.

In giving these estimates of fruit in detail my object is not only to show which, in my opinion, are the best kinds, but to describe each kind sufficiently to enable others to gain tolerably correct ideas to guide them in purchasing and planting, for it should never be forgotten how widely different are individual tastes. What Brown likes Jones detests; the object of

Smith's fondest regards is Green's abhorrence; and therefore it would be as unwise as unprofitable to attempt to dictate. Rather would I try so to teach so as to induce independent thought—to set forth individual traits and characteristics—to show clearly which of the varieties have proved the most useful, and why—to induce others to judge for themselves; in a word, to offer the results of practice and experience.

In looking over these notes I find that no mention has been made of upwards of a dozen kinds of Plums, good and bad, which I have in cultivation; enough good kinds have, however, been noted to select from, and I need not, therefore, add to the length of this paper.—EDWARD LUCKHURST.

## NEGLECTED FLORISTS' FLOWERS.

### THE RANUNCULUS.

In the round of favourite flowers grown by florists of a generation since, there often used to come in due succession between the Pink and the Plectee, and in most refreshing contrast to all before and after it—the Ranunculus. Now its place in such a garden circle is often vacant. Not many Tulip cabinets have now their few drawers at the bottom for Ranunculuses. It is a great pity, because the flower is full of capabilities and properties attractive to the florist. It possesses great command of colour. In the self varieties there are crimson and purple blacks; scarlet, red, rose, pink, and white. In yellow, orange, lemon, cream; also white. There are classes of white and yellow grounds with tips and edges, mottles and stripes of various colours, usually some shade of purple, brown, rose, and red, and in addition to these are some curious roans, grey, and red, that are a fancy dress peculiar to the Ranunculus.

One of the chief charms of this flower, particularly to a florist, is that it is very sportive and vigorous from seed, so much so that a seedling-bed is, perhaps, the great surprise and charm of Ranunculus-growing. Even the most double exhibition flower will frequently afford a seed head when fully expanded, but very seldom any stamens. Pollen must, therefore, be obtained from well-shaped and coloured semi-doubles that afford it freely. Good seed somewhat resembles scales or flakes of bran with a slight brown germ set in the middle. It is very delicate, and like seed of the Auricula is better left uncovered by any soil, and the soil kept generally moist by a sheet of glass over it. Sowing may be done at the time the old tubers are planted—about the end of February.

The Ranunculus has, no doubt, an ill name for being a crotchety, ill-tempered old flower, a punctilious tuber requiring everything to its own good liking, or else declining to bloom. The plant is, indeed, particular in some of its requirements, but troublesome in none. It is exact but not exacting. It requires precisely its inch and a half underground, otherwise the new tuber which is naturally formed over the very neck or woolly crest of the old one will endeavour to rectify matters by diving down or coming up by means of a sort of underground stem, dropping several of its claws in the course of it, and making an awkward if not weakened root.

At planting time I always wet the tubers twenty-four hours beforehand; they then swell marvellously, and do not literally get up and walk out of bed, as they often do when planted dry. Moistening them also enables one to detect any diseased or rotten claw, which ought to be removed, but cannot be easily detected in a dry state. The claws when thus swelled are not brittle or liable to be snapped off so easily at planting. Knocking off a healthy claw is so much loss of stored-up strength, and it is worth while to be careful. Another emphatic demand of the Ranunculus is a firm bed for growing in. If I were doomed to take those forced and dismal walks called "constitutional," I would never forget to take some over my next year's Ranunculus bed. It would be a walk "with an object."

There are matters which the Ranunculus is more particular about than soil, though it likes that good and hearty. Mr. Tyso, the present representative of this flower, most wisely because most naturally, says that a bed made up of turfy sods from a strong pasture where the Buttercup grows will suit our member of that family, the Ranunculus. This is the best advice that can be given where the native soil of the garden is not a deep retentive, yet well drained loam, or one that will grow a hearty Cabbage. Enrichment of cow or hotbed manure may be used, but it must be truly well decayed, and the bed is far the best when made up in October.

Again, another vital point in Ranunculus culture is a well-aired bed for sleeping in—that is, a scrupulously dry storage

when out of the ground. This tuber has literally to be shelved for more than six months out of twelve, owing to its foliage, which would naturally spring afresh in autumn, not being hardy enough to certainly bear our winters. It is therefore forced to rest from about the third week in July to the third week in February. Where there is the slightest dampness the naked tubers are peculiarly liable to contract blue mould at the neck. It is generally fatal, disorganizing the claws and eating into the heart, and when in the ground the whole structure rots. The only thing I know of for affected tubers is to dust them thoroughly with dry brimstone, and keep them from further damp. Rotten claws may be detected by their soft and brown consistency by the moistening process I have spoken of. Healthy claws are white inside. Prevention is better than cure.

I reserve for my last note a deeply important crisis in the culture of the Ranunculus; this is, taking up. No amount of attention to soil or anything else will atone for negligence here. The new tubers strike directly the vigour of the bloom and foliage is past, and every new fibre struck out and afterwards unnaturally checked is weakness to the tuber. It must not only be replaced at some expense, but easily affords a starting point for mildew to lay hold of. The bloom ought to be shaded, for the first heavy rain upon expanded flowers will beat all down, and break many. The cover should be left on till all are taken up, and it will thus keep the ground both cool and dry, and free from the warm stimulants of July rains and sun upon the excitable tubers. I never water my beds artificially, preferring to shade them against very hot sun. But a dry May is always against the Ranunculus, and watering seems to weigh little in their favour when the air is dry and weather rainless.

In Rome I saw a few years since a bed of Ranunculuses that were just opening their buds about the beginning of February. They were double, and some edged flowers among them, but the full quality I could not discern. I thought how grandly this neglected flower might be grown where it could remain to form clumps, only to be moved a moment for rearrangement. Were it in my power this is how I would grow my Ranunculus: I would yearly top-dress the beds, and replant immediately, affording the foliage a glass protection as of a house, freely allowing light and ventilation, and possessing frost-proof powers.

But this is not the place to build glass castles in the air. I have known the florist Ranunculus since my boyhood, and I go on with it in the old way. I have had failures and successes, success surviving the partial shock of failures. Perhaps a chequered experience like this, being natural, is a useful sort of a one to recall.

I am glad to say a word for one of my dear old favourites, and if it will be of help or interest to any fellow cultivator, or if it will lead any young florist or older hand to say "I will make love to the Ranunculus," it would than repay me for a congenial scribble.—F. D. HONNIA, Kirkby Malzeard, Ripon.

## POTATO HUMBUG.

I AM an ill-used member of society. I once bore a respectable name, was well thought of, used to present an open countenance to all comers; but I now begin almost to doubt my identity. Such things are perpetrated either in my name or by members of my family, that were it not for the regard still entertained for me by some of the best members of society, and the ready manner in which I am welcomed at the tables of most of the hotels and restaurants of our great city, I should give myself up entirely to the tender mercies of "W. G. S.," and be contented to be macerated and fungolised until there was none of me left; and the worst of it is that all this while I—(or at least my family are)—am bespattered and bepraised. I am called the "noble tuber," the "indispensable adjunct" to the table of the rich and the cottage of the poor. My rotundity and smoothness of skin form the subjects of encomiums loud and long. My eyes even come in for their share of praise, and were I to believe all that is said of me I should probably "get cheeky" and grow up into a Potato tree. But alas! I recollect that something of the same kind holds good of the horse. He is a "noble animal," people never tire of sounding his praises; and yet it is a well-known fact that horse-dealers, jockeys, ostlers, and racing men in general are not supposed to have the strict sense of honour, or be remarkable for the purity of their language or the innocence of their lives.

When, sir, placed amongst a few others of my fellows at

South Kensington, I, a good honest "Sawnie," looked down the arcade and saw what at first I imagined to be a small section of Tooley Street, and heard certain whispers from those who were visiting the place, I thought "the force of humbug can no further go." Bravo, Yankee Doodle! you are a "smart 'un," and have certainly "wiped the eye" of us poor Britishers. It was a smart notion that, setting us to see how many pounds could be grown from one pound of seed. However, like Shylock's pound of flesh, there is more behind. I wonder whether there is any truth in the statement that along with the offer of the prizes there was a "Bliss-ful" suggestion that a pound of eyes was a pound of Potatoes. But what an absurd humbug it was altogether! An uglier member of my family than one of those exhibited Eureka I have never seen; indeed I rather thought it was an "ugly mug" raised by my friend Mr. Paterson—"Bovina," which had been sent out to Yankeeedom, and then, with a feeling that does them infinite credit, had been rechristened and sent back to us. And then who was to tell whether the pound had been honestly gained and planted? And even if all were "honourable men," what possibly could these, being sent to South Kensington, do in confirmation of this asserted fact? The Fruit Committee of the Society never did a wiser thing than declaring they would have nothing to say to such a barefaced humbug.

As I am on this point I may as well say a few words on Potato shows in general. If they are to serve any good purpose, which I very much doubt, they must be very different to what they are now. I believe that it is no secret that some of the principal prizes at the Potato Show at the Alexandra Palace were gained by people who never cultivated one-quarter of the Potatoes they exhibited, and that even respectable firms were sending in all directions for dishes of Potatoes. There was no rule against doing this, so that there was no dishonesty in the matter. But what purpose can it answer thus to exhibit? Moreover, a Potato Show gives no idea of the value of the sorts exhibited either as to productiveness or quality. It is not true of the Potato that "one may smile and smile, and be a villain;" but one may look well, have a smooth skin and be altogether presentable, and yet have not the slightest claim to be of any use. I could name varieties which are described as fine exhibition kinds, but which are utterly useless for the table. And what have exhibitors done to improve the Potato? Have they suggested better means of culture, taught us anything about the Potato disease, or advanced in any way the "noble tuber"?

And now as to varieties. Here is one of the grand sources of humbug. I look back a few years and I remember, besides myself, some of my excellent friends who then were highly esteemed. There was my dear early companion Myatt's Ash-leaf; Old Lapstone, a sturdy Yorkshire boy; Dalmahoy, who hailed like myself across the border; Victoria, worthy of her name; and a few others. We thought we were decent fellows, but we were told that we might as well hide our heads. A flourish of trumpets came "floating o'er the sea." Enter a host of Yankees—Early Rose, Climax, Prolific, Vermont Beauty, Very Early Vermont, Brownell's Beauty, Eureka, Snowflake; one after the other they came, and with one or two exceptions they have met the fate many of us predicted they would. Early Rose was to beat all early Potatoes out of the field, but I know one case at least where two or three acres were planted and the luckless grower can get no sale for them. Now and then one hears of one which in some place or other has answered, but the general verdict is, "Fit for the pigs." I saw in a contemporary the other day that an "eminent firm" has been dodging the public by letting out at least three old Potatoes under new names, and I doubt not the said firm will find out that other "eminent firms" have been doing the same. One fruitful source of new (?) varieties is that sometimes a Potato grown under special circumstances assumes a different character for a while. It is immediately seized upon by some "eminent" letter-out of "novelties," but when it comes into general cultivation reverts to its original type. Oxfordshire Kidney, Cambridgeshire ditto, Somersetshire ditto, and a host of other names suggest themselves where one Potato does duty under a number of aliases, for all the world reminding one of Woodin or Howard Paul, who appear in twenty different characters in as many minutes.

With regard to those which are really new varieties, such as those raised by that enthusiastic horticulturist Mr. Fenn, I wish one could speak better of them than I find myself able to do. They seem to me sadly to lack flavour. They are

mealy, but they want that genuine Potato flavour which is possessed by such varieties as the Lapstone or by myself; and they are, moreover, so liable to disease that they can never come into general use. Rector of Woodstock is one of the very first to be smitten by the disease, and generally suffers more than any other early variety. Onwards is a ball of flour, and in truth tastes very like it.

I am not, I hope, conceited, although, like most of my countrymen, I do not like to be underrated; but I very much question whether amongst round Potatoes—(I say nothing of kidneys)—there has anything come out, either old or new, in the last few years that can "take the shine" out of your old friend—THE DUNBAR REGENT.

### GROS COLMAN GRAPE.

"EX-EXHIBITOR" asks for experiences of Gros Colman Grape; I give mine. Some years ago I planted a Gros Colman Vine which was sent to me by mistake for another variety suited to a cool vinery. It grew and fruited freely, but the fruit was quite worthless, as it never ripened. Still I let it remain; but this year I gave it plenty of heat, and was rewarded by an excellent crop of well-ripened Grapes, which came in when all my others were gone, and have kept well up to the present time. I am confident they would hang much longer, only that I was obliged to shut off heat for the sake of bedding plants, which I wished to keep at rest.

During the summer I gave the Vine a good deal of liquid manure, as its large berries require liberal feeding to swell them properly. I also thinned the berries well, and did not allow much more than half the bunches to remain. Everyone who has tasted it pronounced it all that could be desired in flavour. I may add, that though I gave plenty of heat, I gave also abundant ventilation. I consider Gros Colman a first-rate late Grape for a well-heated vinery, and worthless under other conditions.

Is not "EX-EXHIBITOR" in error in saying that Mr. Rivers describes Gros Colman as ripening its fruit in a cool vinery? In his catalogue for this year he gives a very good description of it, and says it requires heat.—FREDERICK TYMONS, Cloghan, County Dublin.

["EX-EXHIBITOR" may have referred to the time at which he planted his Vine. In Mr. Rivers's catalogue for 1870 Gros Colman is marked "C V." What is the experience of others on the quality and cultural requirements of this fine-looking Grape?—EDS.]

### NEW GLADIOLI.

THERE is evidence that our English growers are endeavouring to turn the tables on the French raisers as they have done in the matter of Roses; for while M. Souchet, or rather his successors Messrs. Soullard & Brasselot, advertise a dozen, Mr. Kelway of Langport sends out eighteen new varieties, some of them double—nay, treble of the price of the French varieties; and in a catalogue sent to me by Messrs. Robertson and Galloway I find, besides the French and Langport varieties, a number of others raised by Mr. Sampson of Yeovil marked at the same high figures, besides some raised by Messrs. Cunningham, Codling, and others: and as I am frequently asked what is my opinion of the novelties, it may suffice for my many correspondents if I give these few notes. Of the foreigners I know nothing from personal observation, having been prevented from paying my annual visit to Paris and Fontainebleau this year. I have neither seen anything nor heard much of them. A friend has, however, told me that the following may be relied upon as really valuable varieties—Fiammetta, Léandre, Phoenix, and Titania, and as I find them amongst the highest-priced sorts of M. Souchet's lists I have little doubt that they will prove to be as reported to me. The descriptions given of them, thoroughly French and characteristic, are as follow:—

*Fiammetta*.—Splendid spike of perfect flowers; white ground glazed with tender rose, largely and richly blazed bright carmine; large yellow spots, striated carmine.

*Léandre*.—Extra large flower; very long and splendid spike, slightly tinted carmine; very large spots, pure white, with a white line on each division.

*Phoenix*.—Large flowers, cherry rose, white, pure ground edged light cherry rose, blazed darker.

*Titania*.—Very long and large spike; flesh salmon colour flamed cherry on white ground.

I confess that these descriptions puzzle me, and that I have not the slightest notion what they will be like. Besides these there are *Amaranth*, a lilac rose; *Camille*, tender lilac; *Christophe Colomb*, carmine rose; *Columbine*, cream colour; *Esther*, white flamed with rose; *Hecla*, orange red; *Miriam*, white; *Niobe*, tender rose; and *Rosita*, carmine rose.

I now come to the Langport seedlings. No one who has seen Mr. Kelway's exhibits for the last few years can doubt the success which has attended him as a raiser; but one may be permitted, with all that, to question such statements as that those to be let out now are in advance of any in commerce. They are certainly as far as price is concerned; for while the highest-priced one of *Souchet's* is about 11s. 6d., I find *Agrius* marked at 80s., two more at a pound, and seven at 15s. Those which I have seen, and indeed in some cases helped to describe, are the following:—

*Agrius*.—Salmon pink, flaked at the edges with vermillion, with a creamy yellow eye. This flower obtained a first-class certificate at the Metropolitan Floral Society's Show in August last, and is unquestionably a grand flower of great substance.

*Archelaus*.—White flaked with rose, with purple stripes on yellow ground.

*Gwendoline*.—Flesh, with a rose stripe on lower petals. This flower was exhibited at the Crystal Palace, and is certainly very remarkable for its colouring.

*Lord Howard*.—Orange crimson; lower petals white.

*Lord Petre*.—Orange crimson; lower petals carmine. This is another of the Crystal Palace flowers, and is also a fine variety.

The others are flowers which have been exhibited at provincial shows, and I cannot speak of them from personal acquaintance, although I have a faint recollection of *Agnes Mary* at Taunton as a very curious flower, white marbled with slate, with a violet stripe on the lower petal.

Messrs. Robertson & Galloway of Glasgow gave us a taste of their quality when they entered the lists at South Kensington and plucked the crown from Mr. Kelway. I have a faint recollection that some years ago, when our friend Mr. Dix inaugurated a grand exhibition of *Gladioli* at South Kensington, the same firm sent up a very fine stand of flowers, but that they were too late for entering. The flowers that they exhibited at South Kensington were all, or nearly all, French flowers. Although their list comprises, as I have said, many valuable varieties of English growth they announce but one new variety, and that not raised by themselves but by Mr. Codling at Morpeth. It is described thus: "*Marquis of Lothian*.—Rose colour flushed with mauve; the lower segments creamy-coloured towards the base, with crimson flame. Resembling *Lacépède* in hue, but is superior to it in size, form, and colour."

There can be no doubt that, despite its most trying character, the *Gladiolus* is a thoroughly popular flower, and it may be that the very difficulties connected with its culture make it the more valued by those who are any way successful with it—like the *Auricula*, which no one ever likes to abandon; but the *Auricula* is not subject to the same terrible malady which so often disappoints the hope of the *Gladiolus*-grower.—D., Deal.

## PROPAGATING *FICUS ELASTICA* FROM BUDS

No plant has become more popular than this. It is useful either for subtropical gardening or for indoor decorative purposes, for which it is better adapted than any other plant that I am acquainted with, as it will stand the heat and gas of a room for a lengthened period without being injured—in fact, the finest plant I ever saw had been growing in a room for six years.

The present time is the best for propagating this plant, either by shoots taken off with a heel or by eyes. When it is propagated by eyes they should be taken with a leaf attached to each, and be placed in silver sand to keep them from bleeding. Insert them in small pots well drained, in a mixture of peat and cocoa-nut fibre, and plunge in a strong bottom heat of 90°, with a little sand under each cutting. If they are not placed in a strong bottom heat the eyes will not break. When the eyes have rooted and commenced growing they should be repotted into 48-sized pots, in equal parts of turfy loam and peat, with sufficient sand to keep the soil open. The plants should be placed in a temperature of about 70°, and be syringed frequently; occasionally sponging the foliage is also highly beneficial. The plants should never be allowed to

become potbound until they have grown to their allotted size, when they will be greatly benefited by liberal supplies of manure water. During their growing season they should never be allowed to become dry at the roots, as dryness causes the leaves to turn yellow and spoils the beauty of the plants.

Shoots taken off with a heel will make plants much quicker than raising them from eyes; and it is the safest plan, for if strong bottom heat is not afforded, the eyes, as before mentioned, will not break into growth. When only a few plants of rapid growth are required I advise that they be raised from cuttings, but when a great number of small plants are required, which is not unfrequently the case now *Indiarubber* Plants are fashionable, the mode of raising them from eyes must be resorted to.

*Ficus elastica* is a native of the East Indies, and was introduced in 1815. It was formerly grown in stoves, and was merely preserved as a curiosity; it may, however, be kept safely in a winter temperature of 45°. It is one of the most appropriate and ornamental of window plants, and is invaluable for many other purposes of decoration. Plants are now in great demand, and are being rapidly increased by the above modes in most nurseries, and they have a large sale in Covent Garden Market.—A. Y.

## EFFECT OF SEASONS ON PEARS.

THE last two summers have been so totally different in character that a good opportunity has been afforded of noting their effects on the different varieties of Pears. The dry summer found us with fruit clean-skinned, beautifully coloured, and high-flavoured; but small fruit which ripened early rotted at the core sooner than usual. Each season should furnish us with a greater knowledge of fruit, and I think we generally find that Nature offers us a very excellent lesson in the way she carries out her handiwork. There is in nature a compensating method of procedure that we should not hesitate to adopt. I believe we seldom find in one season all those necessary ingredients to build up a really first-class fruit. We obtain one quality at the expense of another; so that this season, being a wet one, has found us with larger fruit but not so highly flavoured, skin rough and deficient in colour, most kinds being later in ripening coming in very irregularly and keeping indifferently.

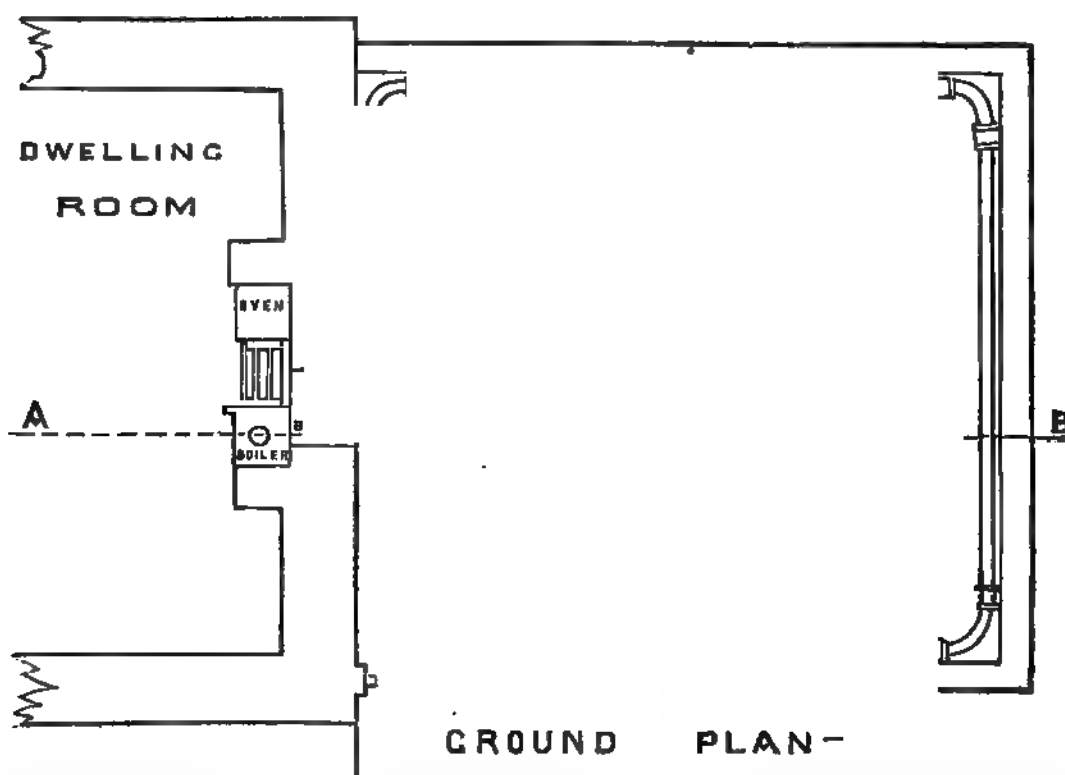
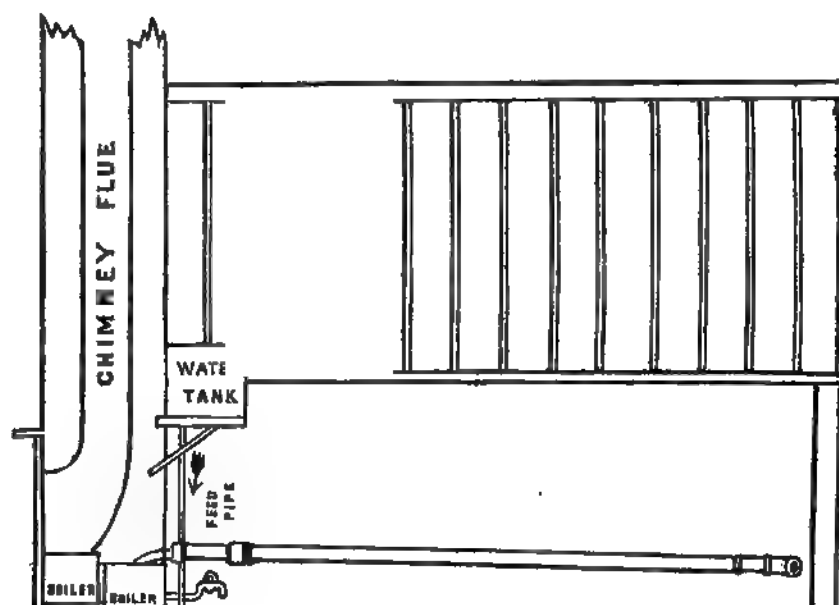
There are some exceptions to this rule, no doubt, and we find some varieties do well in the one season and really worthless in the other. This I have found with two stewing Pears, and I should be glad to hear from anyone who can give an explanation why the *Uvedale's St. Germain* should give us such fine clean fruit last summer (1874), and the *Catillac* so small and worthless, and now, on the other hand, this summer for the character of each to turn quite round. The *Catillac* I never saw better, the *St. Germain* I never saw worse—quite worthless indeed, being not even sound, but cracked, rusted, and very small. The difference is very remarkable, and it seems a safe practice to have the two varieties; we are then provided for either wet or dry seasons. I may say the trees are both standards and growing side by side.—J. TAYLOR, *Hardwicke Grange*.

## HEATING A VINERY FROM THE KITCHEN BOILER.

MANY are the inquiries as to heating a glass structure adjoining the residence by a pipe connection with the boiler of the kitchen fire. To this end there have been many trials, many failures, and some successes. A success was noted by Mr. Taylor on page 527; another, and a very complete one, we now place on record. The accompanying ground plan and section has been taken and forwarded to us by Mr. J. F. Pearson, of Branston, near Lincoln. The vinery is attached to Branston Villa, the property and residence of Mr. T. Lovelee, a practical builder. The mode of heating was devised by himself. In this vinery, and another of much larger dimensions, Mr. Lovelee has, during the past few years, grown some of the finest Grapes in Lincolnshire. He has, during a successful career, invested in house property in town and country; but no buildings have proved so lucrative as his vineries. These he manages himself as a source of recreation; but he is ever ready to acknowledge the value of the advice and assistance of our correspondent Mr. J. Wright, who was gardener to the Hon. A. Leslie Melville when Mr. Lovelee commenced his preparations for Grape-growing.



Theinery heated from the kitchen boiler is a house about 10 feet having a north-east aspect, the long roof of 18 feet 18 feet square, having a half-span roof, the short roof of about length of rafter facing the south-west; the south upright end



GROUND PLAN-

Fig. 115.

is also of glass. The exposure is thus considerable. The produces heavy crops of fruit which ripen perfectly. For the first few years after planting the Vines the interior of the house was planted with early Potatoes, and excellent crops

were produced, which paid interest on the outlay until the Vines were in profit. The house now contains a plant stage for wintering Geraniums.

The heating at first was not a success. The kitchen boiler was not large enough, and another square boiler was connected to it. The flow and return pipes were inserted at the end of this boiler, one beneath the other, and necessarily close together. The pipes were also taken round the house level with the boiler, and the feed pipe entered the top of the boiler. That was not satisfactory. The pipes were taken out and the end of the boiler plated over, the flow pipe then being placed at the top and the return pipe at the bottom of the boiler, the feed being also conducted into the return pipe. The pipes (4-inch) round the house were also raised, the flow gradually rising to the highest point near the door (where an air pipe was inserted), then doubling under was conducted beneath it to the boiler. The circulation was then complete, but the fire was not "sharp enough" to heat the double boiler. A separate fire was next built up in the inside of the vinery and taken into the flue of the bedroom. The fire, before entering this flue, traverses entirely round the boiler. The heating power of the fire is now complete, and indeed, but for the damper in the vertical flue, the draught would, to use the owner's words, "tear all the fire out of the grate." The damper is the heat-governor, and is drawn when heat is required in the pipes. Not many boilers of the most approved and modern construction will do their work quicker and better than this simple homely contrivance.

The raising of the pipes, the flow and return entering the boiler as widely apart as possible, the exposure of the utmost boiler surface to the fire, and the separate tall vertical flue to afford draught, are the elements which have ensured success, a success which will follow all similar efforts if correctly carried out on the same principle, which is so clearly shown in the engraving.

But besides the arrangements there is another condition to be attended to—the fire must be there, and in severe weather early in the morning. When failures in heating occur it is not always the apparatus that is so much in fault as the fire-maker. Those who are the most successful in providing a proper temperature in glass structures are those who "stir the fire" early in the morning.

### NEW ZEALAND.

We append a part of a letter from one of the members of the Maidstone Gardeners' Mutual Improvement Society to a fellow member, giving a few particulars of that important colony and its climate and production, from which it will be seen that there are many features of attraction about it which may not be known to all.—A CORRESPONDENT.

"The weather commenced in the beginning of September to be very warm with any quantity of rain. It continues very warm at present (May 31st), with sufficient rain to cause vegetables to grow at a rapid rate. Winter here appears to be made up chiefly of rain. I have not any recollection of seeing ice last winter, but on two mornings only; it then disappeared in a short time—something like a very sharp May frost that I have seen in England. It is very cold at the extreme south of the country. I was at a place 150 miles farther north than this at the end of October, which is equal to April in England.

"As affording some idea of what the climate is in places, I may note that we have scarlet Geraniums 6 feet high with any quantity of flower on them, Pelargoniums 8 or 4 feet. New Potatoes and Green Peas are plentiful, and we have some of the finest Asparagus I ever saw; Peach trees about 14 or 15 feet high loaded with fruit about half grown; white Arum just now blooming for the second time in the open borders. A plant of *Oleander* (*Glory Pea*) is about 7 feet high in the open border, and is now showing for thousands of flowers.

"The Ferns alone would charm you. Only think, when one stands looking at one of those magnificent tree Ferns from 12 to 20 feet high, and then look around in that small space and find a rich variety of small Ferns. There is a stump of an old tree Fern in the garden here measuring about 5 feet 6 in girth.—A. GIBB."

### NOTES AND GLEANINGS.

PROFESSOR KERNER of Innsbrück has published an interesting pamphlet on the HYBRID PRIMULACEÆ OF THE ALPS. Of these he enumerates no less than twenty-five belonging to the genus *Primula*, four to *Androsace*, and two to *Soldanella*; some of which have been treated as independent species, as that between *P. subcaerulea* and *officinalis* under the name *P. brevistyla*, DC., and that between *P. superauriculata* and *hirsuta* under that of *P. pubescens*, Jacq. By far the majority (twenty) of the *Primula* hybrids belong to a single section, *Auriculastrum*, the remainder to *Primulastrum*. Of "derivative hybrids"—that is, those resulting from the crossing of a

hybrid with one of its parent forms—he knows only one or two certain instances.

—SLEEPER'S DWARF PEACH TREE originated and is grown by Mr. Sleeper of the Oxford Nursery in Indiana, U.S. It stood without protection the severe winters of 1872 and 1873, with the mercury at 28° below zero, and bore the fourth crop. It appears, therefore, to be very hardy. Its habit is quite dwarf, being but 8 feet high at eight years old. The size of the fruit is medium to large, freestone, greenish white, and a little crimson in the sun, the flesh being juicy, sweet, and rich. Being dwarf, winter protection would be easy.—(*Indiana Farmer*.)

—EUCALYPTUS GLOBULUS has had its share of attention in India, and without considering the question of the truth or otherwise of its reputed value, it is proved that although it grows quickly and with vigour on the Neilgherries and Khasia hills at 5000 to 8000 feet above the sea, it cannot be induced to live even for a year or two in the hot plains of India. Dr. King's description of the fine old Banyan tree, "one of the greatest curiosities and ornaments of the place," will, we are sure, be read with interest. He says: "Although considerably damaged by the cyclone of 1864, which carried away two of its largest arms, this fine tree continues to grow vigorously. It now covers an area of ground 800 feet in circumference; its trunk girths 51 feet, and from its branches no fewer than 170 aerial roots are sent down to the ground, some of them being more than 10 feet in circumference. This fine old tree supports quite a colony of Orchids, Ferns, and creeping plants of about twenty distinct species, and gives shelter to innumerable birds. Its exact age is not known, but, considering how rapidly Banyans grow, it probably does not much exceed that of the garden, and is therefore less than a century."—(*Nature*.)

—At a recent meeting of the Californian Academy of Natural Sciences, Dr. Kellogg said he had just returned from under the shadow of the finest evergreens ever grown. He hoped the secretary would record the fact that there were in California GOLDEN CHESTNUT TREES (*Castanea chrysophylla*) from 100 to 200 feet high, 4 to 6 feet in diameter, and with an unbranched trunk of from 50 to 70 feet.

—To wherever Englishmen emigrate they endeavour to render their adopted home like "the old country." We remember in India the care taken to make an Apple tree live; and the last gift handed up to an emigrant from a boat by the ship's side was a lark confined in an old stocking. We honour these clings of the heart, they testify that they have loved home well. We have just received another such testimony as a record of another effort to make a settlement at the antipodes like England. It is a well-printed little pamphlet entitled "Schedule of Prizes—GRAND CHRISTMAS EXHIBITION of pot plants, vegetables, poultry, &c." To be held at Hokitika, New Zealand, on December 27th and 28th. The prizes are not large, but then the entrance fee is only sixpence. There is but one native production encouraged, one class being for "native pigeons," first prize 10s., second 5s. There is the following advertisement appended which may aid some of our readers:—"The undersigned makes named collections of New Zealand Ferns for exportation to all parts of the world. Collections named and fronds collected for drying.—WALTER TIPLER, Kanieri, Westland, New Zealand."

### IVY FOR CHURCH DECORATION.

FREQUENTLY this evergreen is used in bunches in a flowering state, but let me say how effective it is in churches when used in its natural clinging manner. For some years I have been connected with a church which has been elaborately, yet tastefully, decorated by willing helpers, who have rivalled each other in their treatment of the several parts of the edifice. All was perfect except the windows, and now these are made so (the congregation being the judges) by the use of Ivy alone.

The small English variety is used—the sort that clings to stems of trees in woods. Sprays of these are obtained, their bases placed near the glass, and their points at an upward yet irregular angle are trained inwards on the walled recesses of the windows; a spray is occasionally taken across the glass and made to climb up and around the mullions. When tastefully—not formally—done the effect is perfect, being light, airy, and so natural that it appears to be growing in its own wild manner, and has found its way from the outside to the inside of the church.

The runners may be glued, tacked, or tied on the walls as is

most suitable and convenient. They are perfectly flat when taken from the stems of trees, and will fit anywhere.—*CHARICUS.*

### THE OPHIOGLOSSUMS.

THIS genus of plants is closely allied to the Ferns, and many of the species have claims to cultivation. They are a class of plants quite distinct in appearance, and, like the *Platyceriums*, are quaintly ornamental. The family has a wide geographical range, one species being found in British meadows and others

a great depth of soil, but will luxuriate in a rough open composition of sphagnum, turfy peat, and charcoal, if a place is afforded it in a well-heated structure, and a copious supply of water is given in the growing season. This species when well grown is a distinct and ornamental plant, and one that is well worthy of all the care that can be bestowed in its cultivation. Plants may be increased by divisions of the root or by seeds, but in either case the process is a slow one, and for a supply of these plants we must rely mainly on importations. The Portuguese species *O. lusitanicum*, and the British species *O. vulgare*, are the most common, and have a place in most large collections of plants.—*W. J. B.*

### CONCRETING VINE BORDERS—WATERING • POTTED PLANTS—FRAGRANT ROSES.

LET me thank "A NORTHERN GARDENER" very much, and congratulate him also on his very able article with regard to concreting Vine borders. I thoroughly agree with and can endorse all he says, as both theory and practice will bear him out, and I can recommend all who are making new or renovating old borders to read the article over again. I am sure more harm is done from keeping borders too dry than from having them too wet. Not long ago a friend of mine changed his gardener, and when I was staying with him in the October following he complained of his Grapes shanking and being much worse than they had ever been before. On inquiry I found the new gardener had covered the Vine borders during the winter and up to May with rolls of asphalted felt, which were so arranged as to throw all the water off the beds. The Vines have never yet properly recovered the treatment, as a dry season followed, and I do not think they ever will.

There is another question, and that is also a most important one, I should like again to have ventilated in your columns, and that is with regard to watering plants in pots in stoves and greenhouses during the winter, when they are supposed to be in a state of rest. I see constantly advice given to give some stove plants 55° to 60° as minimum temperature, and yet to withhold water. Now, though plants may not be in active growth, yet all plants that retain their foliage, such as *Allamandas*, *Bougainvilleas*, *Passifloras*, &c., must suffer very much if the roots are kept too dry; besides, too, as a general rule, far too high a temperature is recommended for plants at rest. We should remember that plants in their natural state generally have their roots more moist in winter when in a state of rest than any other time; take, for instance, Vines in the vineyards of Lombardy or the South of France, or in the champagne district, and the same law applies, almost equally, even in the more tropical districts.

The query arises whether the roots of plants are really ever in a state of rest, and whether, even in deciduous plants in the colder regions, there is not a circulation of sap sufficient to keep bark and buds healthy and plump. I feel confident, from my own experience, that stove and greenhouse plants often suffer in winter from being kept too dry, so that the fine spongioles of the roots are killed, though of course they may equally suffer if a pot is allowed to be waterlogged; but where the temperature of a house is kept up to 55° by fire heat, plants in pots are much more likely to suffer from dryness than moisture, and many of our stove and greenhouse plants will stand far more cold than is generally supposed. I have seen several kinds of Orchids frozen without injury; again, I have seen *Calceolarias* and *Cinerarias* and *Verbenas* kept dust-dry, and have known complaints made at the same time of their damping-off, when all that was wanted was a plentiful supply from the watering-pot. I should consequently like to draw the attention of your correspondents to these points.

FRAGRANT ROSES.—I quite agree with Mr. Hinton that I was surprised to see François Lacharme omitted in the list of scented Roses. I did not take my part in the election either of new sorts or of Roses for scent, because I had not given sufficient trial in my own garden of the newer sorts, and I thought the question of scent so merely a matter of individual taste that no very definite good could come of it; and so I think it has proved, considering more than 150 Roses were named for twenty-five best and most highly scented. Very likely François Lacharme was omitted because it is in most soils a bad grower, but the question of growth was no element in the case. My own feeling is, Grow a certain number of Tea-scented and other Roses for the sake of their buds and their scent, but never discard a fine Rose even if the scent be nil. Is there,

Fig. 116.—*Ophioglossum palmatum.*

in New Holland, Portugal, Japan, and the West Indies. The genus is named from *ophis*, a serpent, and *glossa*, a tongue, and hence the name of Adder's-tongue, which is the popular name of the familiar English species. One of the most curious of the family is *O. pendulum*, which is a native of Madagascar, where it is found growing on forest trees, its fronds hanging from the branches to a length of several feet. It is often found growing with *Platycerium grande*, and requires much the same mode of cultivation as that quaint plant. It is at home on the rocks of the tropical fernery, and will grow freely in a spongy mass of peaty soil.

*O. palmatum* is one of the best of the species. It is somewhat rare, yet is not difficult to cultivate. It does not require

again, the slightest difference between the scent of Abel Grand and Bessie Johnson? I certainly cannot trace it, and why should Bessie Johnson take precedence of Abel Grand, from which it is only a light-coloured sport?

**SMALL BIRDS IN FRANCE.**—I was called to task with regard to my statement as to the absence of small birds in France. There may be regulations as to the destruction of small birds in Switzerland, but it certainly has not succeeded in increasing the number across the border. Nor can I say much for bird life in the woods alongside the Lake of Lucerne, as in the three or four days I was in that neighbourhood I hardly saw one, and with the exception of a few pert sparrows in the Jardins de Tuileries and Luxembourg I hardly saw a bird for the five weeks I was abroad. An occasional magpie or half a dozen rooks to be seen out of the railway carriage on one or two rare occasions was all that we ever saw. Yes; I must make one exception. I found a nest of young nightingales at Bellagio, and had the pleasure of seeing the old birds go and feed them, while they occasionally rested from their labours to give one of their sweet and thrilling songs.—C. P. PEACHE.

### THE DECORATION OF CHURCHES AND PUBLIC ROOMS WITH EVERGREENS.

AMONGST the many duties of the gardener sometimes are included the Christmas decoration of the church; not but that the clergyman and most likely a committee of ladies do most of the designing and a great deal of the execution of the work, still there is always something requiring the aid of hands more accustomed to rougher employment—a ladder to lift and mount here and there, and the skill to put in position. Letters, however carefully formed, look bad if not fixed with due precision one to another, and the fixing is by no means easy where possibly a mandate has gone forth that nails must not be used. How many times this law is broken I will not attempt to say, but may remark that it is not always an easy task to fix anything very heavy when perched on the top of a ladder, notwithstanding the multitude of advisers below. However, those having the work in hand are usually equal to the task, and the result is generally satisfactory. Not but that there is considerable diversity in the mode by which such works are done, and not a little emulation often exists amongst the decorators who dress out the rival churches in a town; and now and then we should be inclined to think that decoration, so called, is carried a step too far, and the effect produced is the reverse to what ought to predominate in such a place. There ought certainly to be some difference between the decoration of a place of worship and that of a ball-room, apart from the mottoes.

I will try to show that a very good display may be made with evergreens alone, and hope that by a liberal use of them to satisfy the demands of those who look forward to the decoration of their parish church as one of the pleasantest occupations they engage in.

Taking it for granted that whatever additional substances are used for the embellishment evergreens form the principal, to these we will more especially devote our attention. And for church decoration long-established usage has given the most prominent place to the Holly—in fact without Holly it would be difficult to conceive it was really Christmas; therefore in all places where it can be worked-in Holly is used, and with a little care its rather awkwardness to fit into the desired place is overcome, and wreaths as well as lettering is performed with Holly tolerably well; and we have seen the toothed work that very often surmounts the moulded screen bristling with Holly, which by a little management was made to stand in upright sprigs by being secured in their place by pieces of cork voting as wedges in the recesses of the notched work, and no mark nor damage done to anything by the operation. It is, in fact, the knack of hitting on expedients to fit the decoration in its place that is most needed in works of this kind, as we expect the stringent order against nails to be duly regarded. But advertising again to the Holly, we confess to a dislike to see it mutilated to the extent it is often done, and would rather see it oftener in its normal condition with its clusters of berries surmounted by a few inches of stem having leaves on only. That the latter partly hide the berries is perfectly true, but they look more natural; and in most cases where both they and the foliage are permitted at all let them appear as grown. A very slight wreath of variegated Holly for some especial purpose might be allowed to have a tuft of berries worked into

it that had been denuded of its foliage, but the more seldom the better. A branch of Holly against a wall looks better than when the same is worked into an artificial wreath or festoon, for it is rather unmanageable; and although its leaves may be tacked on to a piece of lath, and designs as well as lettering formed of it, and its shining leaves richly ornamented with prickles give it decided preference to everything else for this work, it is less convenient to deal with when its foliage and its berries are wanted to be worked into small wreaths, or for small work of any kind where the leaves are not stripped off; and excepting at Christmas it seems not to enter so largely into decorative purposes as other evergreens, and even then churches would seem the places where it exercises its greatest sway; and probably no other evergreen will stand so long or bear the heat and dust of a dwelling-room at Christmas time so well as this highly popular evergreen, and certainly none is so extensively used.

I may be allowed to diverge a little by way of warning as to its disposal, after doing the honours of Christmas. A few years ago some sprigs of Holly that had done service over the mantelpiece, &c., of a farmhouse near here were thrown into the fire one evening, and blazing up were carried up the chimney and across a road, and landing on a thatched roof set fire to it, and much damage was done, a high wind blowing at the time fanned the flames; it would therefore be advisable to be careful with the dried Holly leaves. Let us, however, take a surer and see what other plants furnish us with the means of making our public rooms, as well as churches, ornamental at this season.

Next to the Holly for church decoration a variety of evergreens are often met with worked-in more or less into the design. Ivy, which as a national plant claiming equal importance with the Holly, is largely used, as is also the Yew, a tree equally sacred; in fact, I much question whether any three shrubs or trees of foreign extraction can equal these three for appearance and effect in their different positions; but we will treat with them now as being equally available for other decorations as well as that of the church, the Ivy especially being a favourite in every way, and wreaths or festoons formed of it look, perhaps, better than anything else when it is so placed that all sides are visible to the eye; the under side of the Ivy leaf being nearly as pretty as the upper side, which is not the case with many evergreens. We usually prefer the short bushy twigs from old plants to make festoons, and if loaded with berries so much the better. Our mode of making festoons of this, as well as other kinds of evergreens, is to have a quantity of twigs prepared, and a temporary table or bench formed; they are placed upon it, when the operator takes a piece of string, seldom or never thicker than the blacklead which forms the writing part of a pencil, and a loop being made at one end is fixed to a nail or hook at the end of the table, and with not more than 4 or 5 feet of string to work with. One or two twigs are taken in the left hand, and a sort of a hitch knot is made with the string near the point of the twig, and one or two more twigs being added near the base or butt-end of the twigs, a similar hitch knot is made there with the same string, the operator walking backwards as he proceeds, and having his right hand to the table where his supply of evergreens is. The process of forming a great length of festooning available for hanging up anywhere is a much quicker one than many suspect, although as will be seen by the above that each twig has two ties, one at each end, and the whole being in fact what may be called heads to tails. Of course some little care is necessary not to confine any leaves with the string if possible, and a few inches of the tip ends of each shoot should extend beyond the tie, so as to look less fettered.

I should not like to guess how many hundreds of yards of festooning of this kind our men have at various times prepared, but it would be a great many miles; of course not of Ivy alone, but of other evergreens as well—Laurustinus, Sweet Bay, and Alaternus being all quicker and faster made up than Ivy, and all looking well. While one of the neatest of all is Box, which is capable of being made up much lighter than most other sprays, unless it be Cypress or Yew; but most evergreens are available for the purpose. The best, however, being those having leaves not too large; for that reason the Corsican Laurel is not so good as many evergreens, and the Portugal Laurel, though looking very well at first, is not the best to stand many days. Neither is the Laurustinus so good as Box, but the Phillyrea does very well. But it is not always that a selection can be made, and now and then the result of a trial is not satisfactory; the Evergreen Oak being marred by the white on

the under side of the leaf, and a similar fault was once found with some Rosemary that was worked into the same purpose. I have never tried Butcher's Broom, its harshness seems against it; but I have seen a very neat wreath of Myrtle, which, however, cannot always be had in quantity. *Cupressus Lambertiana* makes a very nice wreath, and so does most of the others that do not present the flattened form of the *Arbor-Vitæ* class. Pinuses sometimes are used, but they are not generally admired; and all the Silver Fir section, like the common Laurel, look best when a good large branch is fixed up without mutilation. But there is ample variety of material to work into the purpose stated.

In mentioning the above as being capable of being made to any extent, I may add that they unite together very well by tying the string that forms them together, and the joint is not perceived. I may also add that they will carry about anywhere without any material injury, which is an important matter when they have to be sent to a distance. A very little tack will suffice to loop them up anywhere almost, while a room may be crossed and recrossed as many times as it is thought necessary if there be a central fastening by which they can be attached to the ceiling, as a hanging gaslight or chandelier; and should the burners be too close to the evergreens by being underneath them, it is better to have a piece of naked wire to fasten their ends to rather than run any risk of their igniting; but we have seen the wreaths remain all right within about 4 feet of the burners without taking any harm. Still it is better to err on the safe side, and a piece of wire fastened to the stem of the gas burner or the chain of the chandelier may extend so far as to reach beyond the action of the flame, and all will be safe. I may further add that it is not unusual to ornament these wreaths with paper rosettes, spikes of flowers, or anything that may be desired. A very good effect is produced by sticking-in shoots of the common Privet when loaded with its black shining fruit; while, perhaps, a more pretty effect is produced when berried Ivy is used by taking the trouble to dip the berries in a sort of batter made of plaster of Paris and water. It dries and hardens in a minute, and ought to be done before the festoon is made, taking, however, a little more care than is otherwise done that it does not get knocked off; but if it be well done it will bear a good deal of hardship, and is very showy, puzzling many what it really is, the snowy whiteness contrasting strongly with the glossy green leaves. Such wreaths may be made of such a variety of material that it is not unlikely but I may have omitted several really useful things; but one I would not like to pass by, and that is of dead foliage, and here the Oak comes out best of anything; and where twigs well clothed with old leaves can be had they may be made to form an important feature in an arrangement. Other dead leaves may also be tried, but I have not seen any that I like so well as the Oak; and I may further add that I have been disappointed in the effect produced by a festoon of *Olinaria maritima*, its leaves so soon fell and had a wretched look; but I daresay some of the variegated *Eunonymus* would be better; but on this head, perhaps, enough has been said.

Besides the above way of making a continuous wreath or string of evergreens any length that may be required, there is another mode equally quick; it takes fewer evergreens, and many affirm it looks better. The plan is this:—Cut the twigs into equal lengths, say 6 or 8 inches, and having the string fixed at one end as in the former case, the twigs are merely tied crossways by a knot fastened to them in the middle, usually two twigs being tied together, with a head or point each way; and at the distance of about 2 inches, either more or less as the case may be, two more are fastened in like manner, and so on to any length, the whole of the shoots being crossways to the string. Generally a mixture of evergreens looks better done this way than when only one kind is used, and some like the plan better than the one "heads to tails" previously described; but when it has to be sent to a distance it is liable to get entangled, unless it be wound round and round something like a very wide board or frame, when it may be undone and hung up in its place. It is very light, and in many places is doubtless better than the heavier one, but both may be used together with advantage, and then the comparison may be made, which it is not easy to give an opinion on without seeing them. Of course in the making of such wreaths great care is necessary not to entangle any of the leaves. I may mention here, that neither in this nor in the other mode of making such ropes of evergreens is an extra string wanted. Beginners sometimes start with one, but if the

festooning be hung up by one end the chances are the evergreens will all slip down to the bottom, so that even when an extraordinary heavy wreath is required it is best to have the string in proportionate strength, and only use one. In a lofty room, or in the open air, where a heavy massive wreath is wanted, say of common Laurel or Oak branches, if it has to be hung, let the cord which suspends them be also the one that secures them together.

Of the mode by which such festooning may be used in a room, the taste of those having the duty of hanging them up will be called into operation, and very little or no damage need be done by such light-made articles as those described. Where there is a moulding we have seen them merely suspended on some part that projects upward, or anywhere where a little hold can be had, as it is only the matter of a few ounces. It is easy to judge that almost anything will bear that. Sometimes it happens when there is nothing at the particular place to attach the wreath to, a little bit of stick may be introduced between two lateral projections sufficiently light to bear the little weight required, or we have sometimes known a common pin forced in where wanted do all that was necessary; but where there is a wooden cornice it often happens that a small tent hook may be inserted in some recess of the moulding where it will leave no mark when taken out. As a wreath of the kind alluded to may be made to surround the frame of the mantelpiece looking-glass, a pin or two keeping it in its place if the moulding in the frame be not sufficient. In a similar way wreaths may hang from each cornice to within about 5 feet of the ground, when, as has been before observed, they may be made to cross and recross the room diagonally or at right angles in any manner that may be required. We once had a rather large public room to decorate, lighted by seven gas burners or chandeliers, hanging in a row from the centre of the ceiling, which was too high to be reached from the floor; but there being access to the roof above, and there being openings where the gas pipe descended, a cord was lowered, and from each of the same places a set of four wreaths was drawn up, which were attached to places at the top of the walls at a sufficient angle from whence they started, so that by crossing each other the large plain roof was in a manner intersected by the wreathing, so as to form a series of diamond shapes; while from the places on the walls where these were secured to, loops of the same were carried round; sometimes a double row of the latter has been worked out, for the arrangement may be varied in many ways.

Apart from the hanging festooning above alluded to, much the same sort of a wreath may be made by tying the evergreens on to a wire bent in some fanciful form; and where the room is too low to allow the evergreen rope as we may call it to be suspended from the ceiling, a very good effect may be produced by preparing a number of wire scrolls to stretch a little way across the ceiling, and, in fact, to touch it, somewhat in the form of cantalivers. These will, however, require to be tied rather securely to the cornice, or the top of the wall where the cornice usually is, one tie being generally sufficient. Usually ordinary fencing wire will be stout enough for this, and the lighter it is the better if it will bear the dressing, which I need hardly say ought to be light also, yet enough to hide the wire. Sometimes a sort of double scroll can be fixed to the opening from whence the chandelier is suspended, and the scrollwork from it almost meet that from the sides. This is much lighter than where the festoon hangs, and is better for a room deficient in height. We have sometimes used wire of a slender kind, plaiting it double or more when strength was wanted, and terminating single at the extremity where lightness was required. Wire, in fact, is exceedingly pliable, and to the church decorator is an all-important agent, its only drawback being that it adds so much to the weight of the ornament when fastenings of the most slender kind only are allowed.

As we have elsewhere said that wherever possible and practicable a branch of an Oak or common Laurel, and several others look better in their entire condition than when cut into fragments to work-up into the form described, and a very good effect is often produced by a number of branches of common Laurel fastened on to the cornice of a room one piece after another, partly against the ceiling and part down the sides; but this can only be done in the room and with suitable fastenings; but we have known these nailed on to a narrow board like those used by slaters, which if coloured green do not show much, and their lengths can be fixed up fast enough.

In like manner we have sometimes used a bit of board not larger than the opened hand, on which neat little flat branches of Laurel or other evergreens can be nailed on, jointing in all directions, and perhaps the junction in the centre can be concealed with some rosette or other becoming ornament. Such a mass of evergreens can be hung in the centre of any large space of naked wall, as a string from the cornice would hardly be noticed, and it is quickly put up.

Another way of preparing a small star for any particular place is to procure large flat leaves of the Portugal Laurel and sew them on to a piece of thick paper or cardboard star fashion, the points of the leaves all projecting outwards and much beyond the paper to which they are sewn. Of course this is lady's work, and a little practice is wanted to do it neatly; but such stars are very useful in this—a small thread will suffice to hang them up against a wall. Neither is their utility limited to that purpose, for we often use them on the dinner table, placing them under candlestick stands or anything else that seem to want such a vase. Usually we have two or more sizes, which with care last several days at the dinner-table; but for hanging-up against a wall there ought to be flowers, either natural or artificial, in the centre to conceal the needlework.

Fruit has by some been introduced into such decoration, but I am no advocate for it, unless some special purpose, as a thanksgiving decoration or something of the kind, call for it; nevertheless, I know it is often made use of. I believe my first essay at such things was in forming the date 1828 with nicely coloured Apples, through which a wire was forced and bent to the required shape, and it being for a ball-room on the last night of the year, a little contrivance was required to enable the 8 to be converted into a 9 after midnight. Since that time there has been wonderful changes in such matters, and sometimes Oranges and other fruits are fixed where I would be more inclined to call them grotesque than pretty; but I fear I must beat a retreat in this matter, or someone will be asking if the whole thing is not more grotesque than beautiful; but as something of the kind is always looked for some time during the winter, whether it be the dressing of a Christmas tree, the embellishment of the church, or the decoration of the ball-room, all of which are more or less indebted to the greenery in which the gardener deals, the above remarks on the way such things may be worked-up may, perhaps, be of service to those who may not have had much experience that way.—J. ROBSON.

### SUMMER PINCHING AND PRUNING.

I wish to elicit the opinion of orchard-house cultivators (particularly those of the north), on the propriety or impropriety of summer pinching. Here I have for some years entirely abandoned the practice with the best result. I have healthy trees, well-ripened wood, and abundant crops. My trees grow freely. I soon have the wood close to the glass bearing admirably. The only pruning they have is the heading-down of the too vigorous shoots after the fall of the leaf and the cutting-out of shoots where I think them too much crowded.

My trees are chiefly in 16-inch pots, and are repotted every second year with soda and a little bone dust; they are also freely watered with weak liquid manure all through the summer.

Some years since I was struck with the remark of an itinerant Scotch gardener, who, when exclaiming against summer pruning, offered this illustration:—"It pits them out o' temper; did ye ever see a clipped Thorn hedge with a crop of haigs (haws)?"—T. G., *Glintheroe*.

### COLE ORTON HALL.—No. 2.

THE SEAT OF SIR GEORGE H. BEAUMONT, BART.

On page 446 this celebrated garden was referred to and some of its features were described, its poetry quoted, its Conifers mentioned, and its flower garden engraved. Before noticing the useful—the fruit-growing—department, for which Cole Orton has long been famed, a few other ornamental trees and some other attractions of the place merit a brief notice.

How fine the trees are the accompanying engraving testifies. The Elm, even for an Elm, is a giant; the Holly—a massive cone, its lower branches sweeping the grass—is a most worthy specimen; the *Cryptomeria* a model of health, and the dark

*Araucarias* contrasting with the light stone mansion, and which partly surround it at regular intervals, constitute striking features in these richly-ornamented grounds—grounds which are not merely ornamental, but are memorials of those who were eminent in art, science, and literature, and who enjoyed the solitude of this garden.

I have mentioned the memorials in "tree and stone" of Scott, Coleridge, Wordsworth, and others, and worthy of special note is the living arch of Limes, the avenue of these trees leading to the monument erected in honour of Sir Joshua Reynolds. At the entrance are busts of Raphael and Michael Angelo. The avenue is ornamentally paved with coloured pebbles and tiles. The Limes on either side are straight columns, their branches arching overhead delineating in a strikingly natural manner the nave of some vast cathedral. At the end is the urn, on which is inscribed at the request of Sir G. H. Beaumont—

"Ye Lime trees ranged before this hallowed urn,  
Shout forth with lively power at spring's return  
And be not slow a stately growth to rear  
Of pillars, branching off from year to year,  
Till they have learned to frame a darksome aisle  
That may recall to mind that awful pile  
Where Reynolds, 'mid our country's noblest dead,  
In the last sanctity of fame is laid;  
There, though by right the exulting painter sleep,  
Where Death and Glory a joint sabbath keep,  
Yet not the less his spirit would hold dear  
Self-hidden praise and friendship's private tear  
Hence on my patrimonial grounds have I  
Raised this frail tribute to his memory.  
From youth a jealous follower of the Art  
That he professed, attached to him in heart!  
Admiring, loving, and with grief and pride  
Feeling what England lost when Reynolds died."

This attractive memorial was not only raised in honour of a great painter, but another painter, Constable, subsequently made it the scene of one of his finest works, which was sold to Louis Philippe, the late King of the French, for 650 guineas.

I will now pass to the north lawn and note some of the Conifers which are there flourishing. Each specimen is isolated from the rest, and as many of them are planted on gentle knolls their beauty and proportions are seen to the best advantage. Many of these trees—for trees they are—are not only of unusual dimensions, but of exuberant vigour.

The soil of Cole Orton is specially adapted to the requirements of trees. A Beech tree, for instance, on one of the lawns has a stem nearly 85 feet in circumference—a majestic specimen, a monarch of its kind. But to the Conifers. A pair of *Pinuses* (*macrocarpa* and *exceles*) are veritable timber trees; they are not of close growth, but are highly distinct; their heights are 35 to 40 feet, and the girth of their stems 5 to 6 feet. On this lawn *Araucaria imbricata* is also equally striking—not by its mere height, for its leader has been repeatedly broken—but by the size of its stem, which is 6 feet in circumference, and the rude health of the specimen. Of *Cryptomeria japonica* there is a grand example 80 to 35 feet in height, dense, and of the richest green; the branches, laden with cones, of this fine pyramid sweep the lawn, and at their extremities measure 25 yards in circumference. Another notable specimen is *Picea Nordmanniana*, 25 to 30 feet in height, in splendid health and of perfect symmetry; and there is a smaller yet admirable example of *P. amabilis*. Here, too, also flourishes the true *Cedrus atlantica*, the elegant and well-furnished specimen being nearly 30 feet in height; and considerably larger, and still richer, is a noble cone of *Taxodium* (*Sequoia sempervirens*; this magnificent example of the Red Wood tree is 40 feet in height, the result of twenty-five years' growth. Here also are *Deodars* of the same age, and many other specimens which it is not necessary to enumerate; those named will give a sufficient idea of the Conifers at Cole Orton; they are such as their owner, Sir G. H. Beaumont, may be proud to possess. The greater number of them were planted by Mr. Henderson, who has remained to see them attain to their present state of perfection.

Besides the many attractive features within these grounds the views beyond and from them are most extensive and picturesque. From one point a pleasing glimpse is afforded of the village of Cole Orton; from another the distant hills of Derbyshire, and the ruins of Grace Dieu, &c., are seen, and from the terrace is obtained a magnificent panoramic view of Charnwood Forest, with Belvoir Castle in the distance. Overlooking this grand expanse of country, and at the end of an avenue, is an architectural seat and tablet, with a tribute to the memory of one of the family—Francis Beaumont the



dramatist and poet. An extract from this memorial may appropriately close the poetry of Cole Orton.

"Beneath yon eastern ride the raggy bound,  
Bugged and high, of Charwood's Forest ground,  
... There, on the margin of a streamlet wild,  
Did Francis Beaumont sport an eager child;  
There, under the shadow of the neighbouring rocks,  
Sang youthful tales of shepherds and their flocks;  
Unconscious prelude to heroic themes,  
Heart-breaking tears, and melancholy dreams  
Of alighted love, and scorn, and jealous rage,  
Which with his genius shook the hushed stage.  
Communities are lost, and Empires die,  
And things of holy use unhallowed lie,  
They perish; but the intellect can raise  
From airy words alone a pile that ne'er decays."

And now I will change the scene and theme, from groves  
passing on to Grapes, and from Pinques to Pines, The kitchen

gardens are but a short distance from the pleasure grounds, and are approached through bowers of evergreens leading to an orchard, the border by the side of the walk containing standard Roses of unusual vigour, their strength being sustained by good soil, rich feeding, and very close pruning. The fruit trees in this orchard are some of them old and scraggy, yet healthy, and yield good produce; but besides the fruit the Mistletoe growing on the Apple trees invites attention. [It is specially noticed by a correspondent on page 561.]

Entering the walled garden, which is about two acres, the borders again being lined with Roses—what a place for Roses!—we see the vineries on the south wall, and could not resist the involuntary mental inquiry, Are these the structures which for a quarter of a century produced the Grapes which won so many prizes and medals at the Royal Horticultural, Royal Botanic, and other Societies' shows? The houses are neither

Fig. 117.—COLE ORTON H LL.

large, lengthy, nor lofty, but just such common-place erections as were placed in ordinary gardens half a century ago, and the Vines are certainly as old-fashioned as the houses. Their gaunt stems rise from the ground, and their branches are trained "any way," one Vine covering a roof and the shoots disposed according to the one governing condition that the foliage can have light. They are pruned, too, on "no principle," as some might call it, yet on the principle of selecting and cutting to the best eyes, let them be situated where they may. That is how, so far as regards training and pruning, Mr. Henderson has "swept the boards" on so many occasions by the splendid quality and superb finish of his Grapes. It may be urged that this mode of culture is without "system," but rather should it be regarded as the fruit-producing and prize-winning system of which Mrs. Henderson, with just and commendable pride, did what the veteran winner did not care to do—gave abundant proof by such a display of gold medals as have probably never been won by one man. Mr. Henderson showed until he was tired of showing, and won until he was tired of winning, but he grows good Grapes by his old "no system" mode of culture, and on the same old Vines. His mantle has now fallen on Mr. Coleman who was one of his pupils—a worthy pupil of a worthy tutor.

But in worse than these old houses, or at least in a structure still more unlikely and uninviting, have the conquering Grapes been produced. And now I am going to state something wonderful, almost incredible, yet true. At the end of the vineries

is an old brick pit. It was once a Pine pit heated by dung, the bottom being arched forming a chamber beneath in which to place manure. Thirty years ago Mr. Henderson converted this brick frame (for that is what it is) into a vinery by placing in it a little more than a foot of soil and planting with Vines, the canes being trained near the glass. The pit is now heated by a hot-water pipe (no bottom heat), the lights push up and down—there are twelve of them—and the bed in which the Vines (seven) are planted is 7 feet wide. It is from this homely pit that the aristocratic Grapes have come. And now for the marvel—this twelve-light pit has produced Grapes which have won prizes of the value of £300. Is not this an achievement unparalleled in the annals of Grape culture? Eleven pounds of fruit to the square yard of glass is the annual produce of this pit. The canes are trained "any way," and pruned as before to the "best eyes." The wood is stout, and exceedingly short-jointed, and the foliage in October possessed the thick leathery texture of that of the Fig. It is hardly necessary to say that these Vines have been top-dressed and fed with the right food, and in the right quantity, and at the right time. On these Vines I make only this short comment: they show conclusively what may be done with a small amount of soil if properly attended to, and that—I make no secret about it—were I essaying the production of Grapes involving the least outlay in preparations and fuel I should "go in" for the pit culture à la Cole Orton.

At the other end of the vineries is a corresponding pit,

where Peaches are successfully grown in the same way as are these remarkable Vines.

There is another short range of vineries planted with Vines of more modern date, which were carrying excellent crops of highly finished fruit. The outside Vine borders (and I think all are outside save that of the pit) are heavily dressed with rich manure annually, and which is never removed. No fear of the roots leaving a rich feeding ground like that and darting into the subsoil. The surface is simply netted with them, and cannot be dug, and hence the short-jointed wood, leathery foliage, and finely finished fruit. It is just the old lesson over again, but how slow is the world at learning it!

I have yet to note the Pines. The notice needs only to be brief. They are grown in brick pits, the lights pushing up and down. There are four pits of twenty lights each. The plants are grown on the labour-and-fuel-saving system. They are not potted. The suckers are planted one year, and they fruit the next, and such fruit! For instance, in October the fruit had been out and the plants cleared out which had been inserted as suckers in the preceding September. If an occasional plant fails to fruit the first season, its fruit, Mr. Henderson says, never "plumps" so well as the yearlings, because the "steel has been taken out of the soil and the roots have lost their vigour." "If," says he, "you want the best Pines in the shortest time select big suckers 'as long as your arm' and plant them early in September, and within the twelve-month you will have more 'eight-pounders' than anything else." The condition of the plants justified that assertion. The Pines are grown as cool as possible, two 3-inch pipes affording, I think, all the artificial heat; but then the pits are narrow and shallow, so that no more air is heated or cooled than is absolutely necessary. It is the most economical and effectual example of Pine-growing which, after rather extensive travels, has come under my notice.

The garden walls are covered with well-trained and fruitful trees, many of them old, especially the Peaches, which looked like octogenarians which had been cut down and made new again. They produce splendid crops of fruit, illustrating in a convincing manner the force of Mr. Luckhurst's advice on this mode of treatment on page 461.

This instructive garden I now leave. Fortunate it is that it is in the possession of an owner like Sir G. H. Beaumont, whose taste in improving and care in sustaining it is everywhere evident, and who generously permits it to be enjoyed by all who can appreciate the "beauties of nature and of art." Fortunate also is it in having had for a period so lengthy and so fruitful in good results the superintendence of Mr. Henderson, who, with his helpmeet, I thank for their three hours' attention. To Mr. Henderson I must also apologise lest I have seemed to praise (which I know would be distasteful) when I have guardedly endeavoured only to state facts and speak the truth soberly.

Cole Orton is about two miles and a half from the railway station of Ashby-de-la-Zouch, and there are few gardens which will better repay a visit—in June when the Roses are in bloom, or in August when the fruit, flowers, and trees are in perfection.—J. W.

[A correspondent has sent us the following notice of Cole Orton churchyard:—"It was the early spring when I was there, and the flowers in the churchyard were extremely pretty; some on the graves, and others on the grass and by the sides of the walks. At the entrance-gate there was a neat board just inside the churchyard with the following words:—"It is requested that no one will pluck the flowers in God's Acre." This name is taken from Longfellow's poem, which begins—

'I like that ancient Saxon phrase which calls  
The burial ground God's Acre.'

And concludes—

'This is the field and acre of our God;  
This is the place where human harvests grow.'

Cole Orton is a churchyard worthy of imitation."]

#### VINE ROOTS IN SEWER.

In reply to "MUSCAR" regarding Vine roots finding their way into a sewer, as mentioned in the Journal of the 9th inst., page 505, I fail to see why it is so important he should know where the circumstance occurred. I assure him the case was as recorded, and from that circumstance alone I have drawn certain deductions that I doubt not have contributed in no small degree to the fair amount of success I have attained in

the cultivation, under varied circumstances, of the Vine. There are reasons (known to the Editors) why I do not wish to name the place, and trust "MUSCAR" will be satisfied with my assurance of the veracity of the statement.—J. B. S.

["J. B. S." is right; the garden no longer exists where the Vine roots penetrated the sewer. The "fair amount of success" alluded to by "J. B. S." means, we can testify, that he grows some of the finest Grapes which have ever been produced in Britain.—Eds.]

#### OUR BORDER FLOWERS—THRIFT.

THE *Armeria*s are plants of dwarf compact growth, succeeding in most places if they have full exposure to the sun. *Armeria vulgaris* used to do us good service as an edging plant for walks, but now Box, edging tiles, &c., have in a great measure supplanted it, yet the pink and white varieties alternately planted as an edging produce a charming effect. There is little difference of appearance in the habits of the species; some are rather stronger growers than others, but the greatest distinction is in the height of the plants and colour of the flowers.

*Armeria maritima*, the Sea Gillyflower, is found in salt marshes by the sea; either this or a variety closely allied to it is sometimes met with in some of the inland and upland districts. *A. cephalotes* is one of the brightest of the race and very attractive, the colour approaching bright crimson; it continues long in bloom, and is a capital plant to grow where out flowers are in request. It should be in all gardens. *A. montana* is a very desirable kind, well adapted for the rockery, but seldom seen. *A. alpina* is very similar to *A. vulgaris*; it is of very dwarf compact habit, suitable alike for rock or border. *A. nana* is one of the least of the family, but being a native entitles it to a place on our rockery or borders.

The *Armeria*s grow well in a good tenacious loam mixed with decayed vegetable matter and sand. The plants may be increased by division in spring or autumn, and they are the better for being removed occasionally. Sometimes in wet situations the plants damp-off; this ought to be guarded against by good drainage.—VERITAS.

#### HIVE BEES AS PREDATORY INSECTS.

NOTICEABLE amongst the incidents of the past autumn is the fact that both in the weekly and the daily press there have appeared denunciations of our esteemed friend the honey bee, who has been portrayed by the imaginative pens of some correspondents in such gloomy colours that it is quite needful to consider what may be said or done to alter the aspect of the affair. The bee-keepers will have their own way in the business, and I do not intend to speak of it from their standpoint; but as a general observer of insects, especially those which are beneficial or injurious to the garden or orchard, I must assert my belief that the mischief bees have done in the latter during 1875 has been exaggerated, or at least misapprehended. Peaches, Apricots, Plums, and Pears seem to have been much visited by bees, it is true, more in some districts than in others, as we should expect; and a pretty common conclusion by gardeners and others has been that these incursions have to do with the scarcity of wild flowers, driving the bees to whatever resources might be at hand. Many a paterfamilias, perhaps, taking his morning walk in his own domain, has seen the bees in full play about the fruit, and his gardener has had his tale to tell of the destruction of the fruit by these insects; and by-and-by at the breakfast-table a chorus of uncomplimentary epithets rises which are only partly deserved by these diligent honey-collectors. I do not deny that bees will attack fruit that is perfectly sound, yet I also maintain that it is much more frequently the case that the fruit they pull to pieces has previously been preyed upon by some smaller and unobserved insect, or has suffered from a fungoid or other vegetable malady. These causes of decay are missed, and the bee, the "last on the scene," receives all the blame.

At the commencement of last summer we had unfavourable weather, and honey may have been scarce in many districts; but it was not then that the proceedings of the bees were complained of, since the fruit could not have been forward enough to invite their attacks. Sunny weather afterwards produced an abundance of flowers, and I hardly think this explanation will account for any peculiar eagerness bees have shown in resorting to fruit trees. Another view suggested by some, and in which the acute editor of the "Entomologist" sees some-

thing, is that the undoubted scarcity of wasps may have encouraged the bees in their inroads where in ordinary years they have to compete with the wasps. But is it really true that wasps do frequently chase bees off from fruit they would otherwise attack? Possibly they are as contentious as the familiar "cat and dog," though I would not mind backing as a combatant a sturdy bee against its more agile relative the wasp. It would be curious to know whether the Ligurian bee demeans itself differently to the older denizen of our hives in respect to fruit. Some persons have gone so far as to propose that in these days of bee-keeping there should be a legislative enactment limiting the number of hives to be kept in a certain space!—O.

### MISTLETOE PROPAGATION.

As this popular parasitic plant is now in great demand, and as many attempts will doubtless be made to establish it by sowing the berries, it will not be inopportune to note its increase at Cole Orton, where it appears to grow as freely on the branches of the Apple trees as the trees themselves grow in the soil, and Mr. Henderson seems to have the same facility of raising Mistletoe from seed as of raising Radishes.

For a time he could not succeed. That was when he followed the prescribed plans of inserting the seeds in cracks of the old bark, or just within the bark in V-cut cavities, tying with matting and plastering. He then reflected, and this led him to follow Nature's plan. The seeds, he concluded, must be placed on the bark and not under it; and if on it, surely the radicle of the germinating seed will more readily penetrate thin, clean, tender bark than the dirty moss-covered, harder cuticle of the old branches. None can deny the correctness of that logic. That it is sound is evident by the freedom with which the berries germinate when simply rubbed on the smooth clean bark, and no further care is given to them. They are safer from birds when placed on the lower side of the branches. They are stuck on at any time when the berries are ripe, simply crushing the viscid flesh, which glues them closely to the bark. Some of the seeds which had been applied were swelling, being of the size of large peas, while others had formed young plants in various stages of growth.

In districts where the Mistletoe is not found, a common plan of sowing the seeds is after they have done duty for six weeks, near the ceiling of a dry heated room. Let those who desire to establish this hardy parasite affix the seeds in the manner mentioned, but before they have undergone the drying process, and the probability is that a portion of them will germinate.—W. J. B.

### ROSES ON THE ROOTED BRIAR.

I AM glad to observe that many rosarians have adopted the plan recommended by me in this Journal in October last year; that is by putting down young Briar shoots as cuttings or slips in October and November in the ordinary way, and have fine rooted stocks ready for budding in the following summer. I have letters from various parts of the kingdom from those who have tried my plan, and in every instance they speak in the most eulogistic terms of the quantity of fine fibrous roots produced, and the vigorous growth of the head. I had about eighty Briars transplanted early last month which were budded in July; they were all most beautifully rooted, quite as well as some Manettis I was raising at the same time, and in some cases much better. This is certainly saying a great deal for my method.

Your correspondent, "R. C.," says he had not so much success by this plan as I gave myself credit for. I do not wonder at this, for much depends on the season, also on the nature of the soil and the care taken of the stocks, and very much depends upon the kind of stock selected. I have had a good deal of experience in this matter, and I can assure my friend "R. C." that I rather under than over-rated my success in growing Briar stocks. An instance just occurs to my mind of a gentleman who put down fifty Briars according to my directions; he complained to me that nearly the half of them died, but gave me credit in saying that the remainder did well and rooted most beautifully—much better than any Briars he had ever seen, and he intended following out the system. Now I visited that gentleman's place in summer, and I was rather surprised that so many of his stocks grew. In the first place the soil was a stiff red clay, and the spring being very dry the clay soil was so full of cracks that my surprise was that any of the stocks grew. The soil was never watered, no protection

given, and the stocks very small and of the very worst sort. Nurserymen will agree with me when I say that many good plants are lost simply for the want of a little attention and a little common sense in their treatment.

I find Briars succeed best in a cool rich deep loam, and the soil requires to be kept moist in dry weather. My method is to dig deep and keep the ground loose; plant them about 6 inches deep and 1 foot apart, then to cover the surface of soil with a few inches of straw or any kind of litter. This keeps out frost in summer, and prevents evaporation in the drying months of spring and summer; this is most essential, for the Briar suffers much from drought.

"R. C.," I have no doubt, put in his Briars too soft; unless they are well ripened they are sure to die. They should be of this year's growth, red in the bark, with well-developed buds and taken off with a heel. If "R. C." will attend to the above directions I have no doubt he will be successful.—JOHN TURTLE, *Peacefield, Portadown.*

### PORTRAITS OF PLANTS, FLOWERS, AND FRUIT.

*Calochortus citrinus.* *Nat. ord., Liliaceae. Linn., Hexandria.*—"This is a fine new species of that section of the genus *Calochortus* specially favoured by cultivators. The species known previously are *C. venustus*, *Leichtlinii*, *Gunnisoni*, *splendens*, *macrocarpus*, and *luteus*. They all come from either British Columbia, the Rocky Mountains, or California, and, with care, are hardy in our London gardens. The plant flowered last summer with Mr. G. F. Wilson in a cool greenhouse at Weybridge, the bulb of which was given to him by Mr. Elwes."—(*Bot. Mag., t. 6200.*)

*Diuris alba.* *Nat. ord., Orchidaceae. Linn., Gynandria Monandria.*—"D. alba is most closely allied to, if not a slender variety of *D. punctata*, *Sm.*, differing in the flower not being lilac and spotted all over. It has also a more northern range, from New South Wales to Rockingham Bay, whereas *D. punctata* ranges from the former district southward to Victoria. The plant flowered in August last in the open border from tubers sent by Thomas Moore, F.L.S., Director of the Sydney Botanic Garden."—(*Ibid., t. 6201.*)

*Gladiolus cooperi.* *Nat. ord., Iridaceae. Linn., Triandria Monogynia.*—"When Mr. Thomas Cooper was travelling in South Africa on behalf of Mr. Wilson Saunders, he paid special attention to these ensiform-leaved *Gladioli*, of the group of which *G. cardinalis* and *G. psittacinus* are the familiar garden representatives. He discovered, or at any rate brought into notice in Europe, no less than three very striking new species, of all of which bulbs were sent home and duly and successfully cultivated at Reigate, so that they all are now established as inhabitants of our gardens, enlarging materially the groundwork upon which hybridisers can carry forward their experiments. It has now been spread about in gardens for several years, but has never been botanically named or described."—(*Ibid., t. 6202.*)

*Dicabellone barklyi.* *Nat. ord., Aselepiadaceae. Linn., Pentandria Digynia.*—"The first discovery of this interesting plant is due to H.E. Sir H. Barkly, who sent a sketch of the plant in January, 1874, having found it three years previously growing in the Karoo, near the Orange River. Shortly after Dr. Shaw, who, as well as M'Lea, had found it in the same locality, sent to Kew specimens in spirit, and a careful analysis."—(*Ibid., t. 6203.*)

*Pernettya pentlandii.* *Nat. ord., Ericaceae. Linn., Dicoandria Monogynia.*—"A little evergreen shrub, a native of the temperate and colder regions of the higher Cordilleras from Venezuela to Chili, ascending to near the limit of perpetual snow, and varying greatly in stature, habit, and size of leaf. The form approaches to the var. *parvifolia* of Weddell (*P. parvifolia, Benth.*), which inhabits the Andes of Ecuador, as Pichincha and Cotopaxi, and has smaller leaves and short pedicels. *Pernettya pentlandii* was raised by J. Anderson-Henry, F.L.S., from seeds sent from an elevation of 14,000 feet on the Quitonian Andes by his late correspondent Dr. Jameson; it flowered in June, fruited in November, and proved quite hardy at Trinity Lodge, Edinburgh."—(*Ibid., t. 6204.*)

*Calathea leucostachys.* *Nat. ord., Marantaceae. Linn., Monandria Monogynia.*—"This is another fine Central American species of *Calathea* introduced by Messrs. Veitch, to whom also is due the credit of introducing the *C. tubilipatha*, and *C. Veitchiana*. As a species the present comes nearest the *C. Warzewiczii, Klotzsch*, ("Regel Gartenflora," 1866, t. 575),

especially in the form and colour of the spike, bracts, and flowers, but differs wholly in habit, in being much more villous, and in the sessile or subsessile broader leaves. *Calathea leucostachys* flowered in Mr. Veitch's establishment at Chelsea in October, 1874, from plants sent from Costa Rica by Mr. Endres."—(*Ibid.*, t. 6205.)

**PEAR**—*Louise Bonne d'Avranches Panachée*.—One of the most useful of dessert Pears in its season (October) is the *Louise Bonne* of Jersey, one of the synonyms of which is *Louise Bonne d'Avranches*. This excellent Pear is a variety which originated, as Dr. Hogg tells us, in a bud-sport, and in consequence of its beautifully marked fruit was distinguished as the striped variety (*panachée*). The Striped *Louise Bonne*, as may indeed be concluded from its origin, is in all respects similar to the well-known *Louise Bonne* of Jersey—or *Bonne Louise*, as some say it should be called. It is a good grower and a good bearer; it succeeds well as a pyramid on the Quince stock; it is invariably of good quality and flavour; it may be had for some time in use in the autumn season; and a good sample nicely coloured forms a dish of most tempting fruit for the table, and one, moreover, which will bear the test of trial, seeing that its quality equals its appearance."—(*Florist and Pomologist*, 3 s., viii., 281.)

### ROSES.

THE winter of last year here was hyperborean, the spring late, and the summer cold and wet. Nothing could be finer than the first bloom of *Roses* beginning about June 10th. After the first bloom orange fungus set in; still the plants have done well; and I finished the season December 12th.

Orange fungus destroys healthy leaf-action; hence in time the leaves dropped off, the plants had no power of breathing except through the bark. Till new leaves are formed the plant has no power to elaborate the sap; hence sickness. I have just cut out the *débris*, and cut off the secondary and unripe growths, and the plants look like the masts of ships. I did not send my ideas to Mr. Hinton for these reasons: the summer was too wet to judge correctly of scents, and I did not know the date of *Roses*. Let me here say how much we all owe to Mr. Hinton.

As far as I recollect the best scented Hybrid Perpetual *Roses* are *Laoharme's Van Houtte*, the *Duchess of Norfolk*, *Baron Chaurand*, *Pierre Notting*, *Prince Camille de Rohan*, *Madame Knorr*, *Madame Clémence Joigneux*, *Monsieur de Montigny*, *Gloire de Vitry*, and *Baronne Prevost*. Of the newer *Roses* sent here these are the best and good. *Star of Waltham* the best. These are good: *St. George*, *Pierre Seletzaki*, *Souvenir de John Gould Veitch*, *Paul Neron*, *Maxime de la Roeheterie*, *Etienne Levet*, *Claude Levet*, *Madame Naeury*; and for garden ornamentation, *Olga Marx* and *Hortense Mignard*. No new *Rose* has gone through the trying season so well as *Veitch's Duchess of Edinburgh*. It appears to be a *China Rose*, and is a valuable colour for *Tea Roses*, whose chief defect is that they are wanting in high colours.

I regret that the later *Roses* are sadly deficient in scent. My opinion is that the grandest *Roses* of late are *Louis Van Houtte*, *Marquise de Castellane*, *Countess of Oxford*, *Maxime de la Roeheterie*, *Star of Waltham*, and *St. George*. It takes several years on strong and proper stocks, and in proper soils, to come to a reliable adjudication of the value of *Roses*.—W. F. RADCLIFFE, *Okeford Fitzpaine*.

### REST.

EVERYTHING that is endowed with vitality must have rest. The least infringement of this law is followed with a corresponding amount of exhaustion and suffering. Mental or physical work, or both combined, persisted in without a corresponding periodical cessation and repose, sooner or later ends in the premature wreck of bodily and mental powers. This age of fiery competition and activity affords ample proof that the law of periodical and sufficient rest cannot be ignored with impunity. The body that is subject to over-much of physical exertion too soon becomes a wreck of shrunken tissue and physical suffering. The overworked brain softens and refuses to comply with the effort of thinking, or even a worse and more violent fate overtakes it.

This same law of rest reigns as inexorably and prominently—or even more so—in the vegetable kingdom. It does not matter in what zone or latitude the herb, or shrub, or tree

exists; it must, under some condition or other, have its season of rest once in twelve months, or it will terminate its existence prematurely by an effort which it was never designed to make. This age of much and unseasonable forcing of flowers and fruits affords ample proof of this. If a resting season, at one period or other of the year, is not recognised and provided for, a plant very soon exhibits unmistakable signs of debility: and if subject to conditions that keep its vital powers active for any lengthened period without an intervening and a sufficient resting season, it ultimately succumbs to the outrage on its vital powers.

This law is therefore one which cannot be too sacredly recognised and acted upon by all who have to produce fruits and flowers, especially at times which are termed "out of season." It is a tolerably severe ordeal for any plant to be subjected to artificial conditions which will cause it to produce and bring to maturity a crop of either flowers or fruits at a time which necessitates the performance of its functions throughout a season when the stimulating powers of sunlight and heat are at their lowest. To do this, after even a sufficient term of resting, entails a strain upon the system. To persist in attempting to accomplish such a result without a proper term of rest is as certain to end in failure as that two and two make four. There is not a law in the universe that can be disregarded with impunity, and this one of rest asserts its prerogative with emphatic certainty.

It does not matter to what part of the world we look, vegetation under natural circumstances is more or less provided with a season of cessation from active growth. In this country and other northern latitudes rest is induced gradually by autumn, and is carried on to its fullest extent by the lower winter temperature and the comparative absence of the stimulating power of light. If we turn to the tropics we find the same effect produced by the dry season, which bakes the earth to a comparative crust, and dries the air to an extent we in this country never experience.

Here, then, is a power which the successful forcer of flowers and fruits cannot afford to treat in any way but with the utmost consideration and care. It is not necessary to ransack far into the gardener's duty to find practical illustration of the necessity of affording all plants under his care a sufficient season of rest, not to be able to show where the disregard of this point injuriously affects results. Take for instance, the enormous number of pot Vines which are annually grown and forced to produce early Grapes—that is, Grapes in March, April, and May. We do not hesitate to say that there is not one out of every hundred grown that has a sufficient season of rest after they have matured their season's growth; and the crops they bear are proportionally inferior. It has been frequently proved in practice, that, if a Vine has a long season of rest after being well ripened, it is one of the most tractable plants to excite into growth at almost any day of the year. But the converse of this is true of it if it is thrust into heat only a few weeks after it has shed its leaves, or, as is sometimes barbarously practised, they are torn off with the hand. We hold it to be impossible to grow and mature Vines sufficiently early the first season from eyes to make adequately strong Vines that will ripen in time to have rest enough before they are put in heat in November and December. And if this condition of rest is not afforded them they require an unnaturally high temperature to start them in time to answer the purpose for which they are intended. Need it be said that they must break weakly, and have a growth forced out of them with a vengeance, at a season when the natural impulse after sufficient rest is needed more than at any other time? To obviate these unfavourable conditions, and fully recognise and reap the full benefit of a sufficient period of rest, it is necessary to fall back on Vines struck from eyes the previous year; to start such at the turn of the season in January under conditions where they can have as much light as possible, and be grown-on without a check, and so made to thoroughly ripen their wood to a nut-brown colour, and then be subject to a cool position to rest for three or four months before they are placed in heat. Vines grown crowded together and ripened late—perhaps denuded of their leaves with the hand, and then started early without a season of repose—are something like a man or beast working day and night without rest or sleep; and the results cannot fail to be unsatisfactory just in proportion to the faithfulness with which natural conditions and laws are violated.

It were easy to multiply illustrations of this matter, but the case of the Vine is just a type of what is more or less applicable to everything in cultivation. If the Pine Apple is kept grow-

ing in a too crowded condition and by the unvarying application of moisture and heat, the fruiting becomes a matter of the greatest uncertainty; whereas, if the plants are vigorously pushed on to make their growth under the influence of sunshine, and subjected to a rational sliding-scale as regards heat and moisture, they can be fruited with a certainty. In short, if the law of nature as regards a resting period is imitated by different means at different seasons they answer their purpose. Seven years ago we had to do with house upon house full of Pine plants that should all have fruited the previous summer and autumn, but which instead grew on to be of great stature. Their growth was arrested by rather a violent process. They had a rest, with more room to allow air and light to play upon them, and every one started and fruited with comparative satisfaction. The want of rest, and a prolonged season of growth under the influence of heat and moisture, had made leafy giants of them. They had no rest to induce any disposition to fruit. Except under exceptional circumstances, all violent, sudden, and unnatural resting is to be as much deprecated as no resting at all. That maturity and resting which is brought about by subjecting plants to a drying and roasting process is not maturing and resting—it is starving and semi-extinction. To ripen, for instance, the late wood of Peach trees by drying the soil, is a putting of the system to rest by laying violent hands upon its functions, not by building it up and maturing it. A judicious nourishing by liquid manure, a warm atmosphere, and as much light and air as possible, produce maturity and put the system to rest full of latent power and vigour, which, after it has been properly rested, comes into play like a giant refreshed with sleep.

Not only is it necessary that the resting period should be of sufficient duration—it should also be complete by subjecting the plant to a temperature sufficiently low and steady not to excite in any way that is calculated to cause functional activity which is not consistent with resting as nature rests. In the case of deciduous subjects there is generally not so much fear of this condition being infringed; but in the case of plants that are termed evergreen there is reason for believing that a comparatively high winter temperature has too long been practised, and that a season of comparative rest and inactivity in their case also has not been fully recognised. More recent experience proves beyond all doubt that many plants that are natives of even tropical America and the South Sea Islands, and other warm parts, can be subjected not only with impunity to a much lower temperature than has long been the rule in our stoves, but that they are actually benefited by such treatment. We have too long kept out of the count our comparative absence of light and the weakness of constitution that is the inevitable consequence of a stimulating temperature without the amount of sunshine that is necessary to vigorous tissues; and so Orchids that are subject to a heat that is out of proportion to sunlight in winter make lean lanky leaves and flowerless growths; or if moisture is not carefully measured out to the atmosphere, they, in some cases, have the juices sucked out of their leaves—they become yellow, flaccid, and eventually drop off when they are most required. A comparatively low temperature, with sufficient moisture in the air to counteract the evil effects of fire heat, is surely a more rational winter treatment, and one which allows of that rest which insures a vigorous inflorescence and growth afterwards.

All plants which have a disposition to grow in our hothouses in autumn and winter indicate by their so doing that their summer quarters should be cool and not roasting. There is much talk of heat free of cost now-a-days, but it may safely be averred that much heat has been worse than wasted in keeping winter temperature rigidly up to certain and injuriously high points; and if the systems which are said to supply heat free of cost lead to an indulgence in high winter temperature, they will sacrifice at one end what is gained at the other.

Our space counsels us to close our remarks, but we cannot do so without saying that we consider the horticulturists' golden rule to be: Ripen your season's growth properly, and then give a long period of complete rest.—(The Gardener.)

#### IVY.

At a recent arrangement for our church decoration at Christmas the employment of Ivy was deprecated. Is this objection prevalent? The name here is pronounced Iv-ry.—GERTRUDE.

[The correct pronunciation is I-vé. We presume that you live in a midland county. The name is Anglo-Saxon, and in

that language it is spelt Ivith. We know of no reason for objecting to Ivy, unless the canon issued by a Council at Bracara is allowed to be an authority. Prynn in his "Histrio-Mastix," cites other Councils forbidding Christians "to decke up their houses with lawrell, yvie, and greene boughes," quoting as a reason from Ovid the line "*Hedera est gratissima Baccho*"—that is, "Ivy is most acceptable to Bacchus."—Eds.]

#### NOTES ON VILLA AND SUBURBAN GARDENING.

**VIOLETS.**—It is now just upon twelve months ago that I saw in a cottage window a splendidly-bloomed plant of the Neapolitan double Violet in a pot. On inquiry I found that it had been given to the parties just before it came into flower; but its appearance at that dull time of the year was so suggestive and its fragrance so refreshing, that I have thought a few remarks upon the culture of Violets, both in pots and planted-out, might induce those to bestow on them some attention who have not hitherto done so.

I consider few ought to neglect devoting a corner to Violets where they can have a little protection afforded to them. But the principal and most successful way to grow the Neapolitan is to prepare a small piece of ground on, say, a west aspect, but others will do, though perhaps not so well; dig it deep, and add a good dressing of manure if the soil is not rich (this may be done during the winter), and at planting time add a coating of fine leaf soil, and break the surface down, forking the whole lightly over. When the old plants have made their growths, which will be early in May if the season is favourable, take up the runners with a root to each if possible, and prick them in about a foot apart, keeping those that have roots separate from the others, as there may be a difference in them in the autumn. They should be slightly shaded in hot dry weather, likewise watered when needful. They soon establish themselves if care is taken of them. The summer treatment consists merely in keeping the ground hoed and free from weeds. The little runners which they throw out—some sorts more than others—should be picked off; this adds much to the strength of the parent plants, and by autumn they will become quite stocky and have formed good crowns. By the middle or end of September most of them will be throwing up some flower buds, and they will then be ready to plant out in different little nooks and corners near the windows and paths where the sun can reach them; but the best of them ought to be taken up carefully, and if a frame can be spared for them, and be placed on an exhausted dung bed—such as has grown Cucumbers or Melons—and a few inches of soil placed with that already there, the plants will thrive in this admirably. They should be about 8 inches apart, and be well watered at the time of planting, and for a time should be kept rather close. Flowers will soon begin to appear of the finest quality and highest fragrance; but it is not well to allow the flowers to remain on the plants, but they should be picked and transferred to vases or glasses, and if placed in rooms their fragrance will be much admired. It must be remembered that during the dull winter months many leaves will damp-off. These must be constantly kept cleared away, and the atmosphere of the frame must not be kept too wet in bad weather, or many of the flowers will decay also. Some plants ought also to be potted at the same time and placed in the frame to be treated as the others. Excepting when they are coming into bloom they should be placed where they will be somewhat drier and near the glass, in order to have them in flower all at once.

So far the above remarks allude to the Neapolitan variety, which is the best for forcing; but there is The Ozar and Lee's Victoria Regina, producing large single blue flowers, both "beautiful and sweet," and quite hardy. There are also others, such as the single and double Russian varieties: the former is a capital kind and ought to be grown by everyone, even if the others are not. It commences flowering early in the autumn outdoors, and established plants will continue to flower throughout the winter. Here just after the melting of the late snow the flowers sprung up, looking even fresher than ever. They may be all propagated by cuttings or division. The double one is useful by flowering later than those named, but its stems are too slender for the weight of its flowers, which fall down and are often very dirty, and on that account are not so well for ladies to gather. Next there is the white one, which is indispensable on account of its colour; it is perfectly hardy and most prolific in flowers.

A few patches planted here and there among hardy Ferns, or on the little rockery among the Primroses, Snowdrops, and other spring flowers, command observation by their several good qualities.—THOMAS RECORD.

#### DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

The weather has been favourable, and the ground is in good condition, which enabled us to plant out a row of young Apple

trees; the ground had been previously prepared by trenching. The space had been occupied by old trees, so that the work had to be done in a careful manner, the old roots being picked out to prevent fungoid growths from spreading in the ground, which would be injurious to the young trees. A large proportion of fresh loam was added, and a sufficient quantity of rotted manure was worked-in as well. Ground that has grown fruit trees until they are decrepid cannot be very rich in manure, and when trenching-up such borders we have manured heavily, generally applying a double dressing when the ground has been trenched about 2 feet deep. The young trees, of whatever sort, generally make a very good growth the following season, and the ground becomes matted with fibrous roots. Early in November following the trees are again lifted, the ground is trenched over—this time without any manure being added, and the trees replanted with a good deal of rich fibrous loam about the roots.

As many persons will be *planting fruit trees*, a word about the operation may not be in vain. In the first place the trees must be carefully lifted: the nurseryman will see that this is done as it ought to be if he obtains a fair price for his trees. When gentlemen try to purchase at the cheapest possible rate they cannot expect to have healthy well-managed trees. If they are more than two years old they ought to be trees that have been transplanted when they were that age, and every second year afterwards. Trees that are often removed will be furnished with plenty of fibrous roots; but the expense of removing them is considerable, and the purchaser must pay for it. It will always pay to take great pains in planting. The hole for the roots should be wide enough to allow the fibrous roots to be spread straight out, and deep enough to cover the roots and stem of the tree the same depth as it was before. Some fibrous loam is always placed under and over the roots, the soil is then levelled-in, and over it to the fullest extent of the roots is placed a dressing of rotted manure. This is not removed in spring, but is allowed to remain until it is washed away by the rains. We are root-pruning some of the Apple trees to induce fruit-bearing, and in some cases to check the spread of canker. Half the roots are lifted this season, and half the following one.

We continue to prune Gooseberry and Currant trees, and also to nail Cherry, Plum, and Pear trees on the walls. In the southern counties *Vines on the walls* carry good crops of fruit. We have seen Black Hamburgs of very good quality in favourable seasons, but this excellent sort does not always ripen. The best of all for out of doors is Royal Muscadine, which seldom fails to ripen. Those who can command glass erections will occupy their walls with some other sorts of fruit trees, and will find Peaches and the finer sorts of Pears more profitable than Vines; others who cannot afford glass structures must trust to walls for their Grapes. Next to a south aspect a wall facing west is the best. If the Vines have not been pruned they ought to be as soon as it may be convenient. If this operation is deferred until spring the Vines will bleed, and late pruning causes them to start later. We would rather prune out-of-doors Vines in November. The system best adapted for the Sweet-water and Muscadine class is that which encourages the formation of strong well-ripened young canes annually. The young wood produced on old canes is often not strong enough to produce fruit, and if bunches do show they are generally small. The old canes should be cut out when it can be done, and the young canes be laid-in in the place of them.

#### VINERIES.

We have started the early houses this week. The outside borders are protected by wooden shutters. Both outside and inside the Vines have had a watering with tepid water. The outer surface had a dressing of about a foot of fermenting material, and the shutters were again placed over it; they cause the material to retain the heat much longer than if it was exposed. The inside temperature of the houses is 45°; it may be 50° in warm nights, a rise of 5° or 10° being allowed in the day. Moisture is obtained in the atmosphere by evaporating troughs on the pipes, and from water being sprinkled on the walls and pathways. The Grapes in late houses keep better now that the leaves have been removed from the Vines, but constant vigilance is required to detect and remove any berries that show signs of decay. Those who intend to plant young Vines and have not yet made their borders ready should lose no time in doing so. It is better to have all the material ready and wheeled into its place before the winter frosts. The Vines may be planted at the same time, or they may not be planted until March. Whether the Vines are intended for an early or late house, they ought to be planted inside; any distance from 9 inches to 2 feet from the front wall will do. The hot-water pipes to heat the house are usually placed about 2 feet from the inside of the front wall; if so, the Vines had better be planted at equal distances from the wall and the pipes. The best Vines to plant are those that have been grown from eyes the same season, and we always prefer such as have been grown without bottom heat, except a little to start the eyes. Nor should the potting material be rich: turfy loam with the addition of a little crushed bones promotes a moderate growth which always ripens well. A Vine does not

require a deep hole for its roots, but they should be uncoiled and laid to their fullest extent horizontally. Some sweet moderately dry rotted loam should be placed round the roots, and when the Vines start all the eyes ought to be rubbed off except two or three at the base. Two is the usual number if the Vines are planted 5 or 6 feet apart; this distance allows a space of 2 feet 6 inches or 8 feet between the rods.

Pot Vines that were started in October will now be breaking freely. The night temperature should be 65°, or it may fall to 60° in cold weather. It is better to obtain atmospheric moisture from the paths or walls of the house than from evaporating troughs until the days are longer—say about a month after Christmas. We have grown canes of all the leading sorts of Vines from eyes put in about Christmas. The eyes ought to be taken from Vines that were forced early the previous season. The pots are put into a house with a night temperature of 55°, and a bottom heat of about 85°.

*Strawberries*.—A batch of Black Prince in 5-inch pots have been placed in the early vinery on a shelf near the glass. It is very important that the pots should be close to the glass, for when at a considerable distance from it the plants never do well, especially early in the season. We shall remove them to another house as soon as the Vines come into leaf. The temperature of the vinery at that stage is also too high. From 55° to 60° is the best for Strawberries at the time the flower trusses are thrown up. The vinery will be 65° when the first leaves are forming. When the vinery has not been available at this season we have made a dung bed and plunged the Strawberry pots in a gentle bottom heat; the lights were kept rather close, and in three weeks the plants were removed to a house with a temperature of from 55° to 60° at night, and did well. Without this start they would not have thrown up their trusses freely.

*Asparagus*.—The most general mode of forcing this vegetable is by preparing a hotbed. The best material is equal proportions of fresh stable manure and leaves. After laying on a heap for two weeks, and turned over twice in that time, the manure is not likely to heat violently; but the Asparagus must not be put in until a week after the bed is put up. By that time the extent of its heating power may be ascertained. If the heat is thought to be too strong, a layer of freshly cut turf with the grass side down will check its rising into the soil. Some persons are very particular about the age of the roots. We would not use plants less than four years old, but they may be used up to thirty years old or more. A three-light frame of the usual size will, if the plants are packed in closely, produce a dish every day for three weeks. Hotbeds are rather uncertain. Sometimes, even with the best management, the heat will suddenly rise and injure the roots. A heated pit is the best place to force Asparagus with two pipes for bottom heat, and where this can be obtained dung beds can be dispensed with.

#### GREENHOUSE AND CONSERVATORY.

Chrysanthemums are now going out, and a succession of flowers will be kept up from perpetual-flowering Carnations, Cyclamens, Cinerarias, &c. We have on previous occasions alluded to the value of the flesh-coloured Carnation Miss Jolliffe for decorative purposes and for out flowers. As a companion to it we would mention a newer variety, raised by Mr. C. Turner of Slough, named Empress of Germany. It is an immense flower of excellent form, pure white, with an occasional stripe or red flake. The flowers open freely at midwinter in a cool greenhouse. Stage Pelargoniums are now kept close to the glass, else the growths become drawn: where they are too thick we tie or thin them out. Cinerarias are also placed on shelves near the glass. When they are in bloom we place them on the stage with other plants. Bulbs and other plants that have been brought out of the forcing house should be placed in a warm corner, or the house may be kept closer for a day or two. We have finished repotting the last of the Lilliums: this ought to have been done early in November, but from an unavoidable cause it has been delayed until the present time. They were all varieties of *L. lancifolium*, and the bulbs had not started into growth. Lily of the Valley roots were also potted, about twenty-five crowns in an 8-inch pot, and the whole of the pots were plunged in cocoa-nut fibre refuse out of doors.—J. DOUGLAS.

#### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

MALDEN (ROSES). June 21st. Mr. Hubert Bensted, Rocknow, Malden, Sec.  
SPALDING. June 21st. Mr. G. Kingston, Sec.  
HLENSBURGH (ROSES). July 12th and 18th. Mr. J. Mitchell, Sec.

#### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any



of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

**GRAPES IN CONSERVATORY (Learner).**—The Grapes on that portion of the Vine trained inside will be earlier and better than those from the part outside.

**FINES IN WINTER (W. B.).**—We think your plants need rest. Reduce the bottom heat 10° and top heat 5°. Do not syringe. Keep them in this state for a month, giving them one good watering. Then increase your present temperature, top and bottom, 10° respectively, watering, syringing, and preserving a humid atmosphere. These changes should be made promptly and not by gradation. Our "Fine Apple Manual," post free for thirty-two post-office stamps, will aid you.

**SPENT HOPS AS MANURE (G. R. A.).**—You may accept as a truth that all vegetable substances, whether decayed or fresh, afford nourishment to plant sooner or later if dug into the soil. Hops are especially applicable to strong soils, whether used alone or in combination with stable manure. We should be obliged by details of how you used them for hotbed-making.

**PLANTING VINES (A Constant Reader).**—We do not advise you to plant more than eight Vines in your house 24 feet long. We advise you to prune on the short-spur system. P'ant Buckland Sweetwater and Foster's White Seedling with the Black Hamburg.

**MUSCAT GRAPES NOT RIPENING (A Subscriber).**—We do not think a dressing of stable manure would prevent the Grapes ripening, unless it was laid on so thick that it prevented the heat of the sun from acting upon the border in summer, when it would be injurious. This has not been a very good season for late Grapes ripening. We object to placing manure on the borders thickly in summer. A dressing that would allow the sun to warm the surface of the border through it would do good.

**ASSESSED VINERIES (A. P. N.).**—We know of no mode of avoiding assessment.

**WINTERING FERNS (Triceps).**—The fronds of No. 1 die down. Keep the plant in the greenhouse, watering it about once a week to prevent the soil becoming quite dry. The others place at the warmest end of your greenhouse, and keep the soil healthily moist—that is, it must not be allowed to become dry, neither must it be soddened with water. All of them may, if needed, be repotted in the spring when new fronds commence growing. Give them tepid water.

**GRAPES NOT COLOURING (J. E.).**—Many Grapes besides Mrs. Pince's Muscat have coloured badly this year, but of the sort named we have scarcely seen a really well-coloured bunch. Let the Vines carry more foliage and less fruit. Overcropping is a great cause of deficient colouring.

**SHRIVELLED APPLES (X. X.).**—The cause of the Wyken Pippin Apples being shrivelled and flavourless may be attributed to their having been gathered too soon. It is a valuable late dessert kind, but requires to hang on the tree later than many other sorts.

**CELERY DECAYED (B. B.).**—Your Celery has received a check by drought in its early stages (possibly it was sown too early). It has formed seed stems and is worthless. In the future (next year) keep the roots moist, and do not apply the earth so early, and you will not have a similar failure.

**LARGE APPLE AT GHEENT (Delta).**—It was fully noticed in our report of the Exhibition.

**NEW APPLE (Constant Reader).**—Exhibit it to the Fruit Committee of the Royal Horticultural Society. If they report favourably sell the stock to a nurseryman.

**BROWN SCALE ON CAMELLIAS (J. P., Regent's Park).**—Wash the leaves on both surfaces, also the stems and shoots, with a solution of soft soap, 4 ozs. to the gallon of rain water, employing a sponge, dislodging the scale with a pointed stick. This should be done in September and again in spring after flowering, but not washing the young shoots, as the soap solution would injure the tender growths.

**TOP-DRESSING FOR VINE BORDER (J. I. G.).**—Bone dust and cow dung are good as a top-dressing, applying the bone dust alone to the surface, and pointing in with a fork, but not so deeply as to disturb the roots, and apply the cow dung to the surface 2 or 3 inches thick, adding over the dung to take away its unsightly appearance a sprinkling of turfy loam.

**PRUNING PYRAMID FRUIT TREES (F. M. S.).**—The trees having so much wood will not be overburdened with spurs. Retain all the short stubby shoots, especially of the Plums, and all the spurs of the Apple and Pear trees, cutting all other shoots upon the branches to one or two eyes of their base, or about half to three-quarters of an inch of the last year's wood, leaving the main branches a foot apart, and if thicker than that, shortening the main leader to 9 inches, and the leaders of the branches to 6 inches. It is better to have the trees rather thin than crowded with branches. Pay next season strict attention to summer pruning.

**CUTTING HEDGES OF BERBERIS AND OXYANTHERA (Idem).**—In March or early in April cut the Cotoneaster down to the level of the Berberis, trimming in the sides of the latter so as to form a hedge of equal width. Trim-in any irregularities of height or width in July or early in August.

**CULTIVATING BLACKBERRIES (Idem).**—The Lawton and the Dorchester are the best varieties, and are suitable for training to wires against oak palings. Plant 6 feet apart, and train the shoots to the wires equally disposed 9 inches to a foot apart, remembering that the shoots of the current year bear in the following, and are, after fruiting, to be cut away and replaced by young shoots for future bearing. The price per plant is 1s. 6d. to 3s. 6d., or less if a dozen or more are ordered. Not being in much demand (rather remarkable, as Blackberries make excellent tarts and jam, succeeding other bush fruit), only the principal London and provincial nurserymen kept them in stock, but any of those would procure plants for you. We cannot under any circumstances give preference to one dealer over another.

**ORCHARD HOUSE AGAINST EAST WALL (A Young Gardener).**—If your house is not to be heated we do not think you would have any success with Peaches, Nectarines, or Apricots, though it would answer for Plums, Cherries,

and Pears, and if heated would answer for the three first-named fruit trees. An east aspect is not a good one, and to have it on the west side of the wall as it may be (for you do not say which side of the wall you propose to have it), is not much better. With a low wall, say 8 or 9 feet, we should have a half-span roof, with the half-span on the wall side, the house being 21 feet in width, so that you would have 7 feet of the width covered by the back half-span, and 14 feet by the full-span. This would be very nearly equal to a span roof, and would enable you to have a good prospect of success. The house in the centre, or rather at the ridge, would, with a 9-foot wall, require to be 12 feet high, and with this pitch you would have on the open side 6 feet of side height, half of which should be glass, and to open the full length of the house, having at top lights the full length of the house, and 2 feet wide to open.

**CONSTRUCTING GREENHOUSE (A Seven-years Subscriber).**—You show in the elevation a window above that of the greenhouse roof, which is unfortunate, as the height at the back shown in the section is only 8 feet; the height of the front, as also represented in the section, is 5 feet 6 inches, giving in 10 feet 10 inches width an incline of but 2 feet 6 inches, which is much too flat. The fall should not be less than 1 foot in 8 of width, which would make the height of the back wall, or the greenhouse at that part, 9 feet, and we should have it 10 feet, calculating externally. One-half of the front lights should be made to open, and a width of lights along the top the whole length, with 18 inches clear space for ventilation. In other respects the arrangements appear good. In the matter of heating you will need a stove boiler. The pipe chimney you propose will be much too large, but the crifice of that of the boiler will determine the diameter of the smoke pipe. You will require a 2-inch flow and return pipe along the two sides and one end, which will be sufficient to give you safety from frost. An open hot-water cistern would not answer at the point marked on the plan, but there is no objection to it if it have a proper fitting iron lid.

**DESTROYING AMERICAN BLIGHT (S. S.).**—Dress the trees with paraffin oil, applying with a brush. It never fails. "S. S." asks if the Rev. W. F. Radcliffe will give the proportions of the lime and salt and water he advises in the Journal for 22nd of July last.

**DRIVING WORMS FROM POTS (Idem).**—There is nothing we know so safe or so effectual as lime water, which there is no difficulty in procuring, as lime had in an unslacked state will keep in a dry place for a considerable time, we having some now as good as when first had, over two years ago.

**NAMES OF FRUITS (H. Mobbs).**—1, Duchesse d'Angoulême; 2, Winter Nells; 3, Margil. (J. Wilson).—Blenheim Pippin. (R. W., Burleigh).—Vernam. (E. M. Stone).—143 to 144, Beurre d'Arcueille; 151, 152, 153, Castille; 97, Josephine de Malines; 177, Passe Colmar; 184, Vicar of Winkfield; 275, Beurre d'El. (Dr. Mackenzie).—Duchesse d'Angoulême.

**NAMES OF PLANTS (John Brown).**—Heterocentron roseum; 2, Cheilanthes hirta; 5, Nephrodium sp.; 6, Nephrodium molle; 7, Asplenium Ceterach; 10, Gymnogramma L'Hermierii; No number, Pteris arguta. (W. W. A.).—2, Tridacantha discolor; 3, Habrothamnus fasciculatus; 4, Selaginella Martensii; 5, Selaginella Kranziana; 6, Adiantum cuneatum. (J. F. C.).—1, Asplenium lineatum var.; 2, Nephrodium decompositum, var. glabellum.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### ALL IN, OR ALL OUT, BEFORE JUDGING.

We have been asked on many occasions to write a few lines on this subject; we have, however, refrained from doing so in consequence of the conflicting opinions which seem to exist about it. The practice, doubtless, is carried on much more in the northern than in other counties. We allude, of course, to the permission which some societies grant to exhibitors or their representatives of penning their own birds. We have for some time been thinking that the custom is in danger of being much abused, and the events of the last two or three weeks make us feel more certain of the fact. We know it wants desperate pluck to forbid an exhibitor who has brought his birds two or three hundred miles from entering the portals of the show room, where he wants to see his birds properly penned; but we are convinced that those societies which bravely determine not to budge from their rules in the end gain the most confidence from exhibitors. Nearly every schedule has the words "No one will be admitted except those actually engaged in the arrangements;" then, after the people have been admitted contrary to this rule, if someone should chance to ask why the rule had been broken, the reply would often be given that the persons so admitted, being engaged in penning their birds, were engaged in the arrangements. This, however, all must agree, is a loose way of looking at rules, and sounds rather like quibbling. But so it is; and we believe that some societies, relying on the help of these men coming with their birds, do not consequently engage a full complement of servants. Anyhow we know of an exhibition where there was literally not one man engaged to help to pen the birds, for the secretary was working single-handed and without a committee, and we verily believe that had not we ourselves, who had come 150 miles to attend the show, with the valuable aid of a true fancier living in the neighbourhood, not given a helping hand the baskets could never have been opened before the Judges came round. Now if a show cannot afford a sufficient staff of working men the exhibition should not be held at all, for help from outsiders should never be relied upon or countenanced.

We do not wish to imply that the people who gain entrance would do any harm to the birds—very far from it, for we believe that the number of people who would do such a thing must be and is very small. Still the system is wrong in giving to non-

attending exhibitors the possibility of suspecting that foul play may be used, and that they have not the same chance of being able to see to their birds' welfare, and to their being smartened-up before placed in their pens. Now this is all true, and we would strongly advise all societies who insert this rule into their schedules to be more careful in observing it. Of course the rule is optional, consequently those committees who like to let in exhibitors and others before the judging can do so in all fairness by not inserting the rule at all, and then the fanciers could please themselves about sending or not. But to those who do think well to use such a rule let it, we say, in future be more strictly kept. Among many other societies, Aylesbury, Bristol, and Dorchester keep this regulation, we believe, to the letter, and yet we never heard they lost entries from it. So far from such being the case, we know of some who at inconvenience support these exhibitions for the very reason that they do observe so firmly this rule, and keep out all who are not the officers of the show. We are quite certain that if the regulation was impartially adhered to no one would grumble; but to admit some favoured friend and keep out a stranger is very bad management. Let it be stated in the schedule that anyone may pen their birds that likes to bring them, provided they keep to the other rules of the show, which could then be drawn-up at the discretion of the committee; or, on the other hand, let it be stated that no one will be able to gain entrance; so that it may be known that when a rule is made it will be carried out, and then one species of grumbling will be knocked on the head. As the rule is now used it fails utterly, for we ourselves have personally attended a show and taken our birds, gaining admission to the building, and then on the next occasion been refused, while the rules stood the same in both years; and not at one show only, but at show after show and year after year is this the case. If only the non-attending exhibitor knew the rule would be enforced he would send his birds with a much happier heart, supposing, of course, the regulation existed, for if it did not he should have found that out before entering. And again, how often it would prevent an exhibitor coming a long distance, to find only when he reached the show that he could not get in for perhaps twenty-four hours or more.

We do not enter into the late cases of grievance, for it would do no one any good, but we do feel that if the poultry world could only put more implicit confidence in the officers of our exhibitions it would be so much better. They must not be too ready to suspect and impute base designs on the gentlemen who so often at such great expense and labour get up and manage these shows, for we all know that without them the poultry fancy would soon begin to wane. It is the friendly rivalry and competition at these shows which cements so closely our vast poultry fabric. The committees, however, should never give a vestige of suspicion by allowing any one rule being disregarded; and as this one to which we have alluded is itself so important and so frequently broken, we hope managers will henceforth try to put things on a fairer and more straightforward basis. This they can do by making their rules and regulations as they like, but when it comes to the case of admitting anyone before the judging, let no favour be shown to anyone. Let the point be clearly known, so that we may know a society by the fact of its regulations being impartially observed. So that regarding the question we have been writing about, it may always be a case of all in, or all out, before the judging.—W.

### GUILDFORD POULTRY SHOW.

This Show grows apace, and instead of being relegated to queer little places, now fills a large drill-hall, so far as the walls are concerned, the centre of the hall being devoted to roots. For many years we have been the advocates of poultry forming part of every agricultural meeting, especially when they are held in connection with the approaching Christmas markets. If, however, we advocate this as a general rule, it applies with greater force to Surrey. This county was always the home of the best poultry, and to this day to speak of a fowl as a Surrey fowl is to give the assurance that it is one of the best the country affords. It has long been said poultry must at last receive the attention it deserves. We were never more convinced of this than we were when, going to this Show on Tuesday last, we saw the numbers of Geese and Turkeys that were shown. We shall have to speak of them later. Poultry must some day play a more important part in feeding the nation than it does now, and some of the hundreds of thousands sent abroad annually must be kept at home. This cannot be done by the mass of amateurs. With few exceptions they have not the space or the conveniences for rearing chickens. That which can be attained only by a great outlay by amateurs, is already provided gratuitously for those who are engaged in agricultural pursuits. They have space, shelter, and food all available in a farmyard. Good judges have said if as much attention were paid to poultry as to sheep they would pay as well, and we believe it.

With these thoughts running in our minds we were glad to

begin with thirty-three pens of *Dorkings*, and to find the cup and other prizes went to Dorking; thus showing, that although it may be a bootless errand to go to Siltton for cheese, the same cannot be said of Dorking. This Show is remarkable for a good class of Cuckoo Dorkings, the present was no exception. The White Dorkings were also excellent. Had not the cup for the best pen in the four first classes been given to the Coloured, it would have gone to the Whites. They were very superior birds. There is, however, one remark we must make, and that is the prevalence of spurs on the outer part of the leg. This is a recent complaint, but it is on the increase. This has never been a *Cochin* show, the present was no exception. There was not a pen of Buff. There were some good Whites, and a young pen of Grouse that will improve with age. There was a good display of *Brahmas*, but we suppose some of the Darks had been bred purposely for vulture hooks. They were more than exaggerated, reaching nearly to the ground. The Lights were much better than the Darks; accounted for by Mr. Pares having formerly lived in the neighbourhood, and showing what may be done by disseminating good birds. The *Spanish* were not numerous; some of them were good, but these and the *Cochins* were the weak classes. The show of *Game* was excellent, a cup given for the best pen in nine classes was taken by a pair of Brown Reds. There were few *Houdans* and *Orpingtons*; they were, however, good, especially the latter. The rule of larger shows was observed here. The Golden-pencilled were the best of all the *Hamburgs*. There were excellent specimens. The show of *Game Bantams* was good.

Rouen and Aylesbury Ducks met in competition. The Rouens were the heavier, but the Aylesburies were worthy of great praise. We have never seen better-bred or better-shaped Ducks. We here made the acquaintance of a novelty. We have known hen-cooks for years, but we here saw that which we must call a Duck-drake—the plumage so far as the body was concerned, and the voice of a Duck; the curly tail, and the green head and neck of the drake. As when similar anomalies are met with in Pheasants, the colours were dull as compared with the male. There were sixteen pens of first-rate *Turkeys*, we can vouch for their breed and their condition, their weights will speak for themselves. A cock and hen were shown in each class, and the weights were for old birds 48 lbs., 47 lbs., and 44 lbs.; for birds of the year 35 lbs., 33½ lbs., and 32½ lbs. There were two classes of *Geese*. Two birds constituted a pen, and the prizetakers weighed 42½ lbs., 42, and 37 lbs. Among the young ones, 32 lbs., 31 lbs., and 30½ lbs.; of old a poultry show was always held under the auspices of "a society for the improvement of domestic poultry." In most instances it has signally and totally failed. Birds have been bred and sold for large prices for exhibition, but the supply of table poultry in most places has become smaller and worse. Let the *Geese* and *Turkeys* speak for the success that has attended Guildford. It is more than likely these birds eat no more than their predecessors did in the days when a Goose or hen Turkey of 9 lbs. was well spoken of, and anything above that weight was an exploit. To those who, travelling from Woking to Guildford, and notice the hundreds of *Geese* by the side of the small stream, and others "seeking their fortunes" on the common, it becomes an interesting question to ask one's self if, owing to the encouragement given by these societies, every Goose is 8 lbs. heavier than its fellow was twelve years ago, and if the same may be said of *Turkeys*, what is the gain in the actual amount of food available for the people? It is in this respect that one of these shows does more practical good than twenty of those held only for the purpose of showing birds bred to a point or a feather which are attained at the cost of more valuable properties.

Mr. Bailly was the Judge. We published the awards last week.

### WOOLWICH, PLUMSTEAD, AND CHARLTON POULTRY SHOW.

This was held in the Alexandra Hall, Woolwich, and was creditable to the exhibitors and supporters, who are chiefly working men, who started and sustain the Society from the pure love of the fancy.

The exhibitors were mostly dwellers in the neighbourhood, although Norfolk and Faversham, &c., put in an appearance with success. The pens were arranged by Mr. Billet, and from the light only coming from the roof, and the pens being in two tiers, the lower pens were in darkness, which must have been perplexing to the Arbitrator; but with the number of pens—nearly two hundred—we do not think this could be avoided. A larger room will be required with the increasing progress of the Society.

*Brahmas*, *Darks*, headed the list, followed by *Lights*. Some good birds were shown, but in many cases (being in pairs), two good birds were not in same pen, and matching was somewhat defective. This, in fact, was the case in many classes, causing much trouble in making the awards. The classes also were

open and for members, thus causing double awards. We think it would be better to keep these classes to themselves if possible, as was done with younger birds. The *Cochin* prize was taken by a grand old bird, we believe a former winner at Croydon. The white on his deaf ears should not have been, but it would have been hard to have ruled him out for this. In the *Dorking* class there was the best specimen of outside spurs we have seen for some time. *Spanish* was a fair class. The *French* varieties better, but then *Dring* headed the list; we rather fancied his *Houdans*, but they were not well matched, which lost them second place. The first-prize *Brown Red Game* good, and a good pair not dubbed. *Hamburgs* were not too good, and the breast of the Pencilled prize hen much too light, but the cock was good. *Bantams*, all varieties, were chiefly *Game*. We hear there was some grumbling over the awards in this class, a *Crystal Palace* winner and a *Leeds* winner not holding their former position. We certainly thought the commended *Duckwing* cock the best in the class, but not so the pullets, and as the awards were for pairs we think that must have been the difficulty. *Game Bantam* exhibitors should remember that the *Bantam* drooping wing should not be seen: this was the general fault. In the distinct varieties there were some fine *Malays*; we liked the carriage of the highly commended *Malays* better than the other, but the white on tail, &c., was a defect. In *Selling* classes good *Black Cochins* were first, *Houdans* second, a good pen of *Black Hamburg* third, and *Spanish* fourth. There were some good birds shown in the classes for members here this year, showing the spirit at least is willing.

In *Pigeons*, *Antwerps* headed the list with sixteen pens. The Judge highly commended the whole class, his awards being chiefly to the homing type of bird rather than the show. There was nothing very striking in the rest of the *Pigeon* classes, but a pair of *Archangels* took first in the *Variety* class. We congratulate *Woolwich* on its second Exhibition, and hope that *Ashford Show*, the *Dog Show*, and other shows have not taken away its visitors. The awards were made by Col. F. C. Hassard, C.B.

#### BARTON-ON-HUMBER SHOW OF POULTRY, &c.

THIS Show took place in the Volunteer Hall on the 8th inst. There were upwards of 700 exhibits, an increase of 200 on last year's exhibition. The poultry were over 257 pens, the specimens in both the *Game* classes and *Bantams* being especially good. There were 162 entries of *Pigeons*, the specimens possessing more than ordinary merit. The arrangement of the pens was a great drawback to the Show, they were placed in four tiers from floor to ceiling, and numbered from bottom to top, making it almost impossible to judge fairly, as the birds were placed in such inequality of position, and it also made it very difficult for the public to view them, requiring a ladder to see the top birds properly, and to stoop down to see those at the bottom. We were very sorry to see so many birds, both *poultry* and *Pigeons*, arrive too late for competition.

*Game*, *Black Red* or any other *Red*.—Mr. Adams, first prize and cup in addition for the best pen of *Game*, with a good pen of *Brown Reds*. We should like the cock bird, none the less were he lighter-coloured in his hackle. We do like the lemon shade in a *Brown Red*. We very much liked Mr. Glassby's second-prize pen of *Black Reds*. *Game*, any other variety.—Mr. Waters first, *Duckwings*, faultless in colour and good in style. Mr. Adams second, with a good pen of *Duckwings*. *Single Game* hens.—Mr. Adams first, with a *Duckwing*. Mr. Waters second, *Brown Red*, a gem, the only fault that we could find with her being a little bronze on her wing flights. *Single Game* cocks.—Mr. Adams first, with a first-class *Duckwing*. Mr. Waters second, *Brown Red*. The third was also a *Duckwing*. *Game Bantams*, *Black* or *Brown Red*.—First, *Dawson*, *Black Red*, a grand pen, but the cockerel very much out of condition. Second and third also *Black Reds*. Two very good pens. The whole class of seventeen pens were of more than average merit. Any other variety.—First and second, *Newbitt*, with *Piles* and *Duckwings*, very stylish; and *Dawson* third. *Bantams*, any variety but *Game*.—First were *Blacks*; second *Gold-laced*; third *Silver-laced*. *Bantam* cock, any variety.—First, and in addition to cup, for the best pen in the Show, was properly awarded to Mr. Stretch's *Black Red Game Bantam*. This bird was as near perfection in colour and style as we ever saw. *Bantam* hens.—The three prizes were awarded to three *Game*. Very good birds. *Spanish*.—Only three pens; with the exception of the first-prize birds only a poor lot. *Dorkings*.—Eight pens of moderate birds. *Brahmas*, *Dark*.—Six pens. First-prize pen contained a very good cock, the hen only moderate. The second and third were average birds. *Light*.—Seven pens, four of which were not for competition. A second prize was only given. *Cochins*.—First, *Spencer*, contained a very good hen. All the three prizes went to *Buff* birds. *Hamburgs*.—With the exception of the *Black Hamburgs*, were a poor lot. *Gold* and *Silver-pencilled*.—First, *Silver*; second, *Gold*. Any other variety.—First and second, *Blacks*; third, *Golden*. *French*.—A good class. The prizes

were all taken by *Crèves*. Any other variety.—The first was awarded to a grand pen of *Golden Polands*; second, *Malays*; third, *Golden Polands*. *Selling* class.—Twenty-five pens, contained some good and cheap birds. The first, a very good pen of *Black Hamburgs*. Second, a nice pen of *Light Brahmas* that must have taken first in their own class had they been entered. Third, a nice pen of *Black Spanish*. Birds hatched in 1875.—Twenty-one pens. First a grand pen of *Brown Red* chickens of great promise. Second, nice *Buff Cochins*. Third, a grand pen of *Light Brahmas*. *Guinea Fowls*.—Four pens of nice birds. The *Ducks* were of average merit. Nine pens *Bouen*, and nine pens *Aylesburys*. In *Ducks*, any other variety, the first and second prizes were taken by Messrs. A. & W. H. Sylvester with their well-known fancy *Ducks*. Third, a nice pen of *East Indians*. *Goose* or *Gander*.—Seven pens. The first a good *Grey*.

We cannot report who won the point cup in poultry. Mr. Waters counting forty points, and Mr. Adams thirty-seven points, but Mr. Adams taking the cup for *Game* as well, it was thought by some that it ought to count, others thought not, as in the schedule of prizes it was not named as counting.

*Pigeons*.—The cup for the best bird in the Show was won by Mr. Jas. Baker, *Spring Grove*, *Kew Bridge*, *London*, with his grand little *Almond* cock, if we mistake not the cup-winner at the *Palace*. The same gentleman carrying off also the point cup. *Pouters*.—First, a grand *Blue*, narrow in girth, good in style, and well marked. Second and third, *Blues*. *Carriers*.—First, a good *Black*. Second, a good *Black* also, but showed badly, would not show up, crouching in the corner of the pen. Second a good *Dun*. *Barbs*.—A really good *Black*; second, *Black*; third, *Red*. *Owls*.—First, a magnificent *Blue English*. *Turbits*.—First, *Silver*; second, *Blue*; third, *Red*. A class of great merit. Sixteen pens. *Jacobins*.—First, second, and third, *Baker*. All *Red*. *Tumblers*.—First and cup, a splendid little *Almond*. We could find no fault with him, unless it was that he might have had a little broader skull. Second, a wonderful good *Almond* hen; and third, one of the best *Kites* that we have seen for years. Mr. Adams's grand *Almond* cock had to be put off with highly commended. £20 was offered and refused for this bird. *Fantails*.—Mr. Brown first, with a good *White* bird that showed to great advantage, facing you, and carrying a good tail well. Second and third, *Baker*, *Blue* and *White*. *Antwerps*.—First and second, *Short-faced Silver Duns*. Third, *Long-faced Blue Chequered*. Mr. Gamon sent two good pens which would have stood first and second had they not been penned after judging. We saw them penned on the morning after the birds were judged. *Dragoons*.—First, a grand *Blue*, just the bird that we know Mr. Cannan wants in a *Dragoon*. A straight, stout, box beak, from back of head to beak end straight, no drop as in the *Carrier*, a great fault in most of the heavy birds, not much wattle on beak or eye, a good neck, good shoulders, strong in butt of wing, wing not too long as to touch the ground, broad flight feathers, each feather when wing opened out lapping a little over the other, standing well up on the legs, showing the thighs well, looking as if he was ready to dart away if at liberty, hard feather and all of a piece. We know that he contends that the *Dragoon* as well as the *Antwerp* are flying birds, and that to a great extent he judges them for this. We think that he is right. It is high time that exhibitors knew what style of bird to send. We have watched Mr. Cannan's awards, and where it is known that he will judge it will be of no use sending the heavy birds that win with some judges. Second and third were *White* and *Yellow*. Any other variety.—First, *Russian Trumpeter*; second, a really good *Black Nun*; third, *Trumpeter*.

#### EDINBURGH CHRISTMAS CLUB POULTRY SHOW.

THIS important Show was held on December 8th, 9th, and 10th, in the Grass Market, *Edinburgh*; the entries numbered over one thousand, and the quality was first-rate, but the managers have still much to learn as to arrangements; the place was too small, and tier on tier of pens met the eye. Certainly no breed was favoured. *Cochin* and *Bantam* cocks shared equally with others; the top rows of pens over 5 feet from the ground, we should think, and no fancier needs to be told *Cochins* don't do that height. Again, the dishes for water were in many instances large brown basins, big enough for the birds to stand in, and several birds had apparently taken the opportunity to render themselves unfit for exhibition this season, and so get clear of the, to them, show nuisance.

*Scotch Greys* headed the list, and a fine lot they were. The first-prize cockerel was a good one, but too *Cuckoo-Dorking*-like in shape. The best in the class was Mr. Girdwood's, a clearly marked and stylish cockerel. In cocks the same fault (*Dorking*-shaped) was noticeable, while the pullets and hens were grand classes. The first old hen the best *Scotch Grey* in the Show. *Dorkings* were, as they always are, good at this Show, and the judging was mostly good. Mr. Robb's old bird is a well-known



**SELLING CLASS**.—1 and special, W. F. Clarke, Nottingham. 2, H. Yandle; 3, M. Leno. *Ac*, E. Banton, E. W. Webb.

#### RABBITS.

**LOP-EARED**.—*Buck or Doe*.—1 and special, C. Daniels. 2, J. Barker. 3, C. King *etc*, C. Daniels. *Ac*, E. Pepper, J. A. Barra.  
**SILVER GRAY**.—*Buck or Doe*.—1, F. Purser, Bedford. 2, E. S. Smith, Boston. 3, E. Robinson, Kettering. *etc*, — Kendrick. *Ac*, A. Cauty, T. Hicks.  
**HIMALAYAN**.—*Buck or Doe*.—1, T. Hicks, Humberstone. 2, J. Wilson, Louth. 3, J. Taylor, Lincoln. *Ac*, — Greenwood, J. Taylor, A. Farndon, J. Barker, S. G. Bartholomew, S. Ball, G. Johnson.  
**ANY OTHER VARIETY**.—*Buck or Doe*.—1, J. Foster, Kettering. Extra and 1 — Sweetman, Fulford. 2, Mrs. Pickworth, Spalding. 3, S. G. Bartholomew. *Ac* S. A. Clogg, A. Fardon, G. Johnson, A. W. Whitehouse.  
**SELLING CLASS**.—*Buck or Doe*.—1, J. Bowman, York. 2, A. Farndon, *Ac*, J. M. Atkinson, Rev. T. O. Bosley, J. Pilgrim.

#### CAGE BIRDS.

**NORWICH**.—*Yellow, clear, ticked, or evenly marked*.—1, 2, and special, Messrs Harrison, St. Ives. 3, A. Colman, Norwich. *Ac*, W. Richards. *Buff, clear ticked, or evenly marked*.—1 and 2, J. Yallop, Norwich. 3, A. Colman. *c*, J. Moffatt, W. Richards.

**ESSEX**.—1, Mrs. T. Simonds, Boston. 2, T. Moor, Leicester.  
**MANCHESTER**.—*Coppies or Plain-heads*.—1, 2, and special, J. Yallop. 3, J. Moore.

**LIZARD**.—*Gold or Silver-spangled*.—1 and 2, J. Moore. 3 and *etc*, J. Stevens Middleborough. 4, S. Bunting, Derby.

**CHASTED**.—1, special, and *etc*, J. Yallop. 2 and 3, F. Woodward, Derby. *Ac* Messrs. Harrison, J. Moffatt, — Moore, — Yallop, Messrs. Stroud & Goode. 4, T. Green, J. Yallop, Messrs. Knight & Spencer.

**ANY OTHER VARIETY**.—1 and special, J. Spence, South Shields. 2, A. Gows Lincoln. 3, Messrs. Knight & Spencer, Baldoak.

**MULES**.—*Any variety*.—1 and special, J. Spence. 2 — Bunting. 3, Messrs. Stroud & Goode, Leicester. *etc*, J. Stevens. — Bunting, J. Moore. *Ac*, J. Stevens. *c*, J. J. Twigg.

**GOLDENCRENS**.—1 and special, J. Spence. 2, W. Gresham, Lincoln. 3, 2 Bunting. *etc*, T. Green. *Ac*, W. Wilkinson, Knight & Spencer.

**ANY OTHER VARIETY**.—1 and special, E. H. Danson. 2 — Goy. 3, S. Bunting *etc*, T. F. Rhinels. *Ac*, J. Sney. *Ac*, W. Reynolds.

**SELLING CLASS**.—1 and 2, W. Wilson, Lincoln. 3, J. Yallop. *Ac*, E. Walston H. Watson. *c*, S. Bunting.

**JUDGES**.—*Poultry*: Mr. R. Teebay. *Pigeons and Rabbits* Mr. F. Esquilant. *Cage Birds*: Mr. J. N. Harrison.

### DORKING POULTRY SHOW.

THE sixteenth annual Show was held on the 16th inst. The object of the Society seems to be exclusively for the encouragement of breeders of Dorkings, there being sixteen classes devoted to them and only five to other varieties. In four of the Dorking classes and a Selling class the competition was open to all England; the remaining classes were confined to the town and immediate vicinity of Dorking. We have often spoken in favour of local shows as being an inducement to amateur exhibitors, but we fear that a show so thoroughly exclusive must tend to give a wrong impression of the qualifications of prize-winners as many birds placed in the prize list there would have passed unnoticed in our smallest shows. We, therefore, recommend the Society to extend the competition to twenty miles instead of twelve—or why not to all Surrey? as we feel sure there would be a marked improvement in the birds exhibited.

In the class of old birds the competition was very close between Messrs. Burnell and Parlett. We preferred the cock in the pen exhibited by Mr. Parlett, as he was shorter in the leg and better in shape than the winner, but he was mated with a hen very crooked in the breast, which, doubtless, turned the scales; in other points we considered her very good. The others were far behind and the third prize withheld. In the cockerel and pullet class Mr. Burnell was first and second with very grand birds, but we thought the cup should have been given for the pen of young birds in preference to the old. In the cockerel and pairs of pullets Mr. Burnell was an easy winner, his pullets being a charming pair and excellent matched. In the local class for coloured cock and hen over one year Mr. G. Ellis was first, and obtained the cup with a fair cock matched with a large hen, a little white in the lobe, other wise good. In the remaining pens of the Coloured class there were no birds of any pretension. Blue-speckled Cuckoo Dorking.—In this class Mr. Griffin was first (cup) with a really good pen. We were extremely pleased with the hens, and they were quickly claimed for £5. Mr. Young was first in the class for pairs of pullets or hens with a beautiful pair of hens sound in colour, well marked, and nicely matched. Whites were a moderate lot, with the exception of a nice pen exhibited by Mr. Mew. In the Game class we saw nothing worthy of notice. The Ducks, Geese, and Turkeys were a very creditable collection to a show of such dimensions.

The Committee and officers appeared to thoroughly understand their business, and we feel sure they would be equal to an exhibition on a larger scale.

**DORKINGS**.—*Coloured*.—Cup, T. C. Burnell, Micheldever. 2, F. Parlett Chelmsford. *Chickens*.—1 and 2, T. C. Burnell. 3, G. Ellis, Gadbrook, Reigate. *Ac*, J. Ivery & Son.

**DORKINGS**.—*Coloured*.—*Cockerel*.—1, T. C. Burnell. 2, G. Ellis. *Ac*, J. Taylor.

**PULLETS**.—1, T. C. Burnell.

**SELLING CLASS**.—*Coloured Dorkings*.—1, Mrs. F. Stephens, Alton. 2, G. Ellis. *Ac*, G. Ellis, J. Taylor, J. D. Taylor.

#### LOCAL CLASSES.

**DORKINGS**.—*Coloured*.—Cup and *Ac*, G. Ellis. 2, J. Taylor. 3, J. Ivery & Son. 4, F. May. *Chickens*.—1, J. Ivery & Son. 2, G. Ellis. 3, H. Mills, Castle Mills Dorking. *Ac*, E. May, H. Mills, A. Fowell.

**DORKINGS**.—*Coloured*.—*Cock*.—1, J. Tweed, Friday, Mickleham. 2, J. Taylor. *Ac*, E. May, H. Mills, J. Taylor. *Hens*.—1, Marquis of Blandford, Oakdene Mickleham. 2, G. Ellis. *etc*, H. Mills. *Ac*, J. Ivery & Son (3), E. May, H.

Cup, W. A. P. Montgomery  
op. E. Fulton. 2. M. Stuart.  
Fulton. Hen.-1 and 2. M.  
E. Fulton. 2. Wright and  
k.-1 and Cup, M. Stuart.  
Townson, Bowdon. Hen.-1,  
2, and 3. M. E. Fulton.  
k. or Hen.-1, 2, 3, and 4. M.  
E. Fulton. 2. A. Duncan.  
r Hen.-1, W. A. Crawford.  
k. Hen.-1, J. Crawford; Ridley  
Hen.-1, J. E. Spence. Hen.-1, H. C.  
Lawson, Falwood, Preston.  
Bards, Helmsburgh; A. N.  
on. J. E. Spence. 1 and 2. A. N.  
lton. 3. J. E. Spence. Hen.

TURKEYS.—Cock or Hen.—1, M. S. Temple, Hexham. 2. T. Gallon, Gateshead.  
3. A. N. Bryce. Hen.-1, T. Gallon; T. W. Townson.  
Owls.—Eagles.—Cock or Hen.—1 and Cup, M. S. Temple. 2. W. & R.  
Davidson, Montrose. 3. T. W. Townson. Hen.-1, Lamont, jun.; H. Crosby; D.  
Laarie, Kilmarnock; J. Gardner, Preston. Hen.-1, M. S. Temple; T. W. Townson.  
Owls.—Foreign.—Cock or Hen.—1, W. Brydson. 2. E. Beckwith. 3. E. W.  
Bryce.  
Nuns.—Cock or Hen.—1, A. Duthie, Montrose. 2 and 3, J. A. Gilmour,  
Kilmarnock.  
Mares.—Cock or Hen.—1, E. Beckwith. 2. P. Wilson, Morpeth. 3. A. N.  
Bryce.  
Duckcocks.—Blue or Silver.—Cock or Hen.—1, Guthrie & Hope, Hexham. 2. J.  
Gray, Bathgate. 3. E. F. Fulton.  
Duckcocks.—Any other colour.—Cock or Hen.—1 and 2, E. Woods, Mansfield.  
3. E. Fulton.  
ANY OTHER VARIETY.—Miss M. O. Bryce, Loanhead (Fribbuck). 2. J.  
Wallace (Loose Fawn). 3. W. Havell, Birmingham (Antwerp). Hen.-1, A. Gilsen.  
Natho (Fribbuck and Sheld). Hen.-1, J. Lamont, jun. (Archangel).  
Selling Class.—Price not to exceed £5.—1, W. Brydson (Foreign Owl).  
2. J. Lamont, jun. (Carrier). 3. J. Brown (Carrier).  
Portobello. 3. A. Anderson.  
Selling Class.—Price not to exceed £1.—1, J. Pyper (Jacobin). 2. W.  
Brydson (Barb). 3. E. Fulton.  
JUDGES.—Mr. M. Leno, Dunstable; Mr. D. Harley, Edinburgh.

### GREAT YARMOUTH POULTRY SHOW.

This was held on the 15th and 16th inst., when the following  
awards were made by the Judges:—

DORKINGS.—Cock.—Cup, 1, and 2, Mrs. Loring, Beccles. 3. Henry L. Newwood,  
Barking. 4. T. & H. Heath, Norwich. Hen.-1, E. H. Willitt, J. Everett.  
L. Parlett, Chelmsford. 2 and 3, Mrs. B. E. Baywell, Sankham. Hen.-1, E.  
Sapwell, Henry Lingwood. Hen.-1, J. Everett. 2. S. W. Hallam.  
DORKINGS.—Chickens.—1, T. & H. Heath. 2. J. Drewry, Burton-on-Trent. 3.  
W. Koe, jun., Newark. Local, J. Hoggett. 4. Rev. O. J. N. Row.  
BANTAMS.—Dark.—Cock.—1, Horace Lingwood, Cretingham. 2 and Local, Mrs.  
H. E. Buxton, Great Yarmouth. 3. E. F. Percival, Northenden. Hen.-1, W. F.  
Matthews, H. Denton, G. S. Pearson. Hen.—Cup and 1, Newham & Manby,  
Wolverhampton. 2. Rev. J. D. Peake, Chertsey. 3 and Local, G. S. Pearson,  
Great Yarmouth. Hen.-1, Horace Lingwood. 2. E. H. Willitt, F. Bennett, Pudding.  
—1, E. F. Percival, 2. Horace Lingwood. 3 and 4, Rev. T. C. Peake, Local, G.  
S. Pearson. Hen.-1, Newham & Manby, Rev. J. D. Peake, G. S. Pearson.  
BANTAMS.—Light.—Cock.—Cup, 1, and 2, P. Haines, Diss. 3. E. F. Percival,  
Laines. 4. Liege,  
3. J. J.  
Hen.-1,  
Hen.-1,  
Talbot,  
P. G.  
Thropp,  
Kerham,  
J. H. E.  
Stithew.  
3. E.  
Thomas,  
Lamley,  
ton.  
2. Rev.  
Barnet.  
2. W. O.  
G. W. F.  
A. P.  
Mina  
Percival,  
Breeze,  
F. Hoop,  
Barnes,  
Lowes,  
3. Pear-  
1. Berners,  
verett,  
Chester.  
Ac. W.  
P. and J.  
Pearson.  
2. E.  
Barker.  
rd. 3. O.  
agrowth.

BANTAMS.—Any other variety except Game.—1, W. Durrant, Great Yarmouth.  
2. Rev. F. Tarrle, Newmarket. 3. W. Kiteon, West Ipswich. Ac. E. Gladstone.  
Selling Class.—Bantams.—Cock or Hen.—1, T. E. Thirle. 2. W. F. Adde,  
Ashton, Preston. 3. Hammett & Duff, Southwell. Local, G. S. Pearson. Ac. G. S.  
Pearson, F. Beadland.

### PIGEONS.

CARRIERS.—Cock.—Local, G. S. Clements. 1 and 2, G. Kempton, London.  
Ac. G. Kempton, W. G. Hammett. Hen.—1, G. Kempton. 2. H. Yardley, Bir-  
mingham. 3. W. Larkins, Biggleswade. Local, G. S. Clements. Ac. G. Kempton.  
H. Thirle. Young Cock or Hen.—1, H. C. Clarke, Nottingham. 2. W. G.  
Hammett, Bedford. 3. G. Kempton. Local, G. S. Clements. Ac. G. Kempton.  
W. Selmer, R. Cant, H. Thirle, G. M. Hale.  
POULTERS.—Cock.—1, H. Thirle, Barnham Market. 2 and 3, W. G. Ham-  
mett. Local, G. S. Clements. Hen.-1, W. W. Watkin. Ac. H. Reynolds. Hen.—  
1, L. & W. Watkin, Northampton. 2. Dr. E. Waller, Peterborough. 3. H.  
Thirle. Ac. H. Reynolds.  
BARR.—Cock or Hen.—1, C. Norman. 2. H. Yardley. 3. A. B. Byford. Local, G.  
S. Clements. Ac. C. Norman, W. Larkins, E. G. Cava, W. G. Hammett. Young  
Cock or Hen.—1, C. G. Cava. 2. H. Thirle. 3. A. F. Byford. Local, G. S.  
Clements.  
TUMBLERS.—Short-faced.—Cock or Hen.—1, J. E. Palmer. 2 and 3, W. G.  
Hammett. Local, G. S. Clements. Ac. H. Yardley, R. Cant, H. Thirle. Long-  
faced.—Cock or Hen.—1, A. & W. Silvester. 2. J. Cargill. 3. W. G. Hammett.  
Local, S. Folkes. Ac. J. Cargill, A. & W. Silvester.  
FANTAILS.—1 and 2, W. G. Hammett. 3. H. Thirle. Local, G. S. Clements.  
Ac. J. T. Loveridge.  
DUCOONS.—Cock.—1, W. Smith. 2. A. P. Byford, Ipswich. 3. E. Woods,  
Mansfield. Local, G. S. Clements. Ac. J. J. Edalton, A. W. Wren, E. Woods.  
W. G. Hammett. Hen.—1, W. Smith, Walton-on-the-Hill. 2 and 3, E. Woods.  
Local, G. S. Clements. Ac. A. W. Wren, J. Chandler, J. E. Palmer, H. Thirle,  
W. G. Hammett, M. G. Hale.  
AUTUMN.—Cock.—1, H. Thirle. 2. A. P. Byford. 3. J. Edwards, Redbourne  
Brewery. Local, G. S. Clements. Hen.—1, H. Yardley. 2. A. F. Byford. 3. H.  
Thirle. Local, G. S. Clements.  
JACOBS.—Cock or Hen.—1, H. Thirle. 2. T. W. Swallow, Northampton.  
3 and Local, G. S. Clements, Great Yarmouth. Ac. J. Heaton.  
ANY OTHER VARIETY.—1 and 2, T. Chambers, Northampton. 3. W. G. Ham-  
mett. Local, G. S. Clements. Ac. Dunsheaf of Hamilton and Brandon, T.  
Green, Miss E. A. Feler, A. & W. Silvester, A. P. Byford, H. Yardley.  
Selling Class.—1 and 2, A. P. Byford. 3. F. Green, Ipswich. 4. H. Thirle.  
Local, G. S. Clements. Ac. G. Mering, G. S. Clements.

### QAGE BIRDS.

CLARE YELLOW.—1 and 2, G. & J. Mackley, Norwich. 3. A. Dunn, Norwich.  
Local, G. Tripp. Hen.-1, J. Catlock, G. & J. Mackley. Ac. J. Catlock, A. Dunn, J.  
Howard.  
CLARE BUFF.—1, 2, and 3, G. & J. Mackley. Hen.-1, J. Catlock. Ac. J. Catlock,  
J. Howard.  
BEST MARKED OR VARIATED YELLOW.—1, 2, and 3, G. & J. Mackley.  
BEST MARKED OR VARIATED BUFF.—1, 2, and 3, G. & J. Mackley. 3. A.  
Dunn. 4. J. Howard, Norwich. 5. J. Yallop.  
TICKED OR UNEVENLY MARKED YELLOW.—1 and 2, G. & J. Mackley. 3. J.  
Howard. Hen.-1, A. Dunn, G. & J. Mackley. Ac. J. Yallop, A. Dunn.  
TICKED OR UNEVENLY MARKED BUFF.—1, 2, and 3, G. & J. Mackley. 3. A.  
Dunn. Ac. A. Dunn, J. Catlock.  
CLARE YELLOW OR BUFF WITH DARK CREST.—1 and 2, A. Dunn. 3 and 4, G.  
and J. Mackley. Local, G. Tripp.  
VARIATED YELLOW OR BUFF WITH DARK CREST.—1 and 2, J. Yallop. 3. G.  
and J. Mackley. Local, G. Alcock. Ac. A. Dunn, G. & J. Mackley.  
JONQUE CINCINNATI.—1, J. S. Pearson, Great Malton. 2. R. Poole, Maldon. 3.  
J. & G. Mackley.  
CURRY CINCINNATI.—1, G. & J. Mackley. 2. J. S. Pearson. 3. R. Poole. Local,  
G. Gibbs, Great Yarmouth.  
FOUR CARRIERS IN ONE CAGE.—1, 2, and 3, G. & J. Mackley. Local, G. Tripp.  
Ac. A. Dunn.  
Selling Class.—1 and 2, G. & J. Mackley. 3. J. Howard. Hen.-1, A. Dunn, G.  
and J. Mackley. Ac. A. Dunn.  
JUDGES.—Poultry and Pigeons: Messrs. Teebay & Dixon.  
Canaries: H. Thirle.

### LIVERPOOL NATIONAL COLUMBIAN SOCIETY'S SHOW.

This was held at Messrs. Lucas's Repository, Great Charlotte  
Street, Liverpool, on the 15th and 16th inst. The awards were  
as follows:—

POULTERS.—Blue pied.—Cock.—1, J. Guthrie. 2 and 3, Rev. W. C. Bullen,  
Liverpool. 4. J. E. Spence, Broughty Ferry. Ac. J. Gardner. Hen.—1, 2, and  
3, Rev. W. C. Bullen. 4. J. Guthrie.  
POULTERS.—Black pied.—Cock.—1 and 2, Rev. W. C. Bullen. 3. J. Guthrie.  
Kerham. 4. H. Vardon, Liverpool. Hen.—1, Rev. W. C.  
Bullen. 2. J. Guthrie.  
POULTERS.—Red or Yellow pied.—Cock.—1, J. Guthrie. Hen.—1, J. Guthrie.  
2. W. J. Warhurst.  
POULTERS.—White.—Cock.—1, Rev. W. C. Bullen. 2. W. J. Warhurst, Staley-  
bridge. 3. W. Lees, Oldham. Hen.—1, J. E. Spence. 2. H. Simpson, Spalding.  
3. Rev. W. C. Bullen. Ac. H. Vardon.  
POULTERS.—Any other colour or marking.—Cock.—1 and 2, J. Guthrie. 3.  
J. E. Cryer, Southport. 4. W. J. Warhurst. Hen.—1, J. Guthrie. 2. H.  
Vardon.  
POULTERS.—Any colour or marking.—Young Cock or Hen.—1 and 2, J. Guthrie.  
3. H. Simpson.  
CARRIERS.—Black.—Cock.—1, 2, and 3, E. C. Stretch, Ormskirk. 4. S. Drons-  
field, Werneth. Hen.—1, T. Hewitt, Knutsford. 2. H. Vardon, 3. E. C. Stretch,  
4. J. E. Cryer. 5. C. E. Duckworth, Liverpool. Ac. W. Lees.  
CARRIERS.—Dun.—Cock.—1, E. C. Stretch. 2. E. C. Stretch.  
3. H. Simpson. Hen.—1, J. Stanley, Blackburn. 2. E. C. Stretch. 3. A.  
McKenzie, Liverpool. Ac. W. Sefton. 4. W. Lees.  
CARRIERS.—Any other colour.—Cock.—1, 2, and 3, E. C. Stretch. 4. W.  
Sefton. 5. F. Graham. Hen.—1, J. Guthrie. 2 and 3, E. C. Stretch.  
CARRIERS.—Black.—Young Cock or Hen.—1, H. Simpson. 2. C. E. Duckworth.  
3. S. Dronsfield. Hen.—1, E. C. Stretch.  
CARRIERS.—Dun.—Young Cock or Hen.—1 and 2, J. James, Bath. 3. E. C.  
Stretch. 4. H. Simpson. Ac. T. Hewitt. 5. J. E. Cryer.  
CARRIERS.—Any other colour.—Young Cock or Hen.—1 and 2, E. C. Stretch.  
3. A. McKenzie. Hen.—1, T. Hewitt. 2. H. Vardon. 3. J. E. Cryer.  
BARR.—Black.—Cock.—1, J. Stanley. 2. A. Sharples, Wootton. Hen.—1, J. Stanley.  
2. W. J. Warhurst. 3. J. E. Cryer. 4. S. Dronsfield.  
BARR.—Dun.—Cock.—1 and 2, J. E. Cryer. Hen.—1 and 2, J. Stanley.  
BARR.—Red or Yellow.—Cock.—1, S. Dronsfield. 2. A. Sharples, Manchester.  
3. W. Lees. Hen.—1, J. E. Cryer. 2. J. Stanley. Hen.—1, S. Dronsfield. 2. A.  
Sharples. 3. A. Sharples.  
BARR.—Any other colour.—Cock or Hen.—1, 2, and 3, J. E. Cryer.  
BARR.—Black or Dun.—Young Cock or Hen.—1, J. Stanley. 2 and 3, J. H.  
Cryer. Hen.—1, J. Stanley, J. H. Cryer. Ac. J. Stanley, J. H. Cryer, F. H. Jones.  
BARR.—Any other colour.—Young Cock or Hen.—1 and 2, F. H. Jones. 3. J.  
Stanley. Ac. and 4, S. Dronsfield.



id c, B. Lawson.  
s. J. Taylor.

odhouse, King's  
Noble.  
J. Taylor, and

Cock or Hen—  
st. J. Taylor (3).

C. A. Pearson,  
W. Smith, A.  
F. Smith. Ac, F.

ardner, Preston.

id. s and Ac, A.

th. s, W. Smith.  
m. s, J. Guthrie.

#### DRAGONS.

DRAGONS.—Silver, Brown-barred.—Cock—1, s, and s, A. McKennie. Hen—

1, F. Graham. s and s, A. McKennie.

DRAGONS.—White.—Cock—1, s, McKennie. s, C. E. Duckworth. s, O. A.

Pearson. Hen—1, W. Smith, s, O. Stretch. s, F. Graham.

DRAGONS.—Any other colour.—Cock or Hen—1 and s, F. Graham. s, W.

Smith.

DRAGONS.—Blue or Silver.—Young Cock or Hen—1, W. Smith. s, F.

Graham. s, A. McKennie. Ac, F. Graham (s), W. Brown, W. Smith (s); S.

Dronfield.

DRAGONS.—Red or Yellow.—Young Cock or Hen—1, s, and s, F. Graham.

Ac, S. Dronfield.

DRAGONS.—Any other colour.—Young Cock or Hen—1, s, and s, F. Graham.

Ac, A. C. Allaway, F. Graham.

FOURSON OWLS.—Blue.—Cock—1 and s, S. Lawson, Preston. s, W. Sefton.

Ac, J. H. Cryer. Hen—1 and s, S. Lawson. s, J. H. Cryer.

FOURSON OWLS.—Any other colour.—Cock—1 and s, T. W. Townson.

Bowden. s and s, S. Lawson. Ac, S. Lawson, S. Dronfield, A. C. Allaway.

Hen—1, T. W. Townson. s, S. Dronfield. s, S. Lawson. Ac, E. A. Thornton.

ENGLISH OWLS.—Blue.—Cock—1, s, and s, T. W. Townson. s, W. Sefton.

W. J. Warburton, S. Lawson, J. Gardner. Ac, T. W. Townson (s), S. Lawson (s).

T. H. Stretch, Ormiskirk; C. E. Duckworth, J. H. Cryer (s), W. Sefton. Hen—

1, C. E. Duckworth. s, S. Lawson. s, S. Dronfield. Ac, J. Gardner, T. W.

Townson, S. Lawson.

ENGLISH OWLS.—Powdered Blue.—Cock—1, S. Lawson. s, W. Woodhouse.

s, P. H. Jones. Ac, J. H. Cryer. Hen—1 and s, S. Lawson. s, H. Vardon.

ENGLISH OWLS.—Silver.—Cock—1 and s, T. W. Townson. s, H. Vardon. Ac,

S. Lawson (s). Hen—1, P. H. Jones. s, H. Vardon. s and s, J. H. Cryer.

Ac, T. W. Townson. s, S. Lawson, H. Vardon.

ENGLISH OWLS.—Any other colour.—Cock or Hen—1, H. Vardon. s, J. H.

Cryer. s, S. Lawson. s, A. C. Allaway, North Shields. Ac, A. McKennie.

ENGLISH OWLS.—Blue.—Young Cock or Hen—1, H. Vardon. s, T. H. Stretch.

r, T. W.

s, and

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Guthrie.

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#### ANTWERPS.

MEDIUM-FAÇED ANTWERPS.—Any other colour.—Cock or Hen—1 and s, W.

Gamon. s, A. Bingham. Ac, B. Ashton, Ormiskirk; A. Bingham. c, S. L.

Bellhouse, Sale.

MEDIUM-FAÇED ANTWERPS.—Any colour.—Young Cock or Hen—1 and s, W.

Gamon. s, B. Ashton.

LONG-FAÇED ANTWERPS.—Red Chequered.—Cock—1 and s, W. Gamon. s, A.

Bingham. Hen—1, s, and s, W. Gamon. c, T. H. Stretch.

LONG-FAÇED ANTWERPS.—Blue Chequered.—Cock—1 and s, W. Gamon. s, T. H.

Stretch. Hen—1 and s, T. H. Stretch. s and c, W. Gamon. Ac, T. Moore,

Birkhead.

LONG-FAÇED ANTWERPS.—Silver Dun.—Cock—1 and s, W. Gamon. s, H. M.

Pearson, Liverpool. Hen—1 and s, W. Gamon. s, F. H. Morton. Ac, T. H.

Stretch. c, A. Bingham.

LONG-FAÇED ANTWERPS.—Blue or any other colour.—Cock or Hen—1 and s,

W. Gamon.

LONG-FAÇED ANTWERPS.—Red or Blue Chequered.—Young Cock or Hen—1, s,

and s, S. Dronfield. s and Ac, W. Gamon. c, T. H. Stretch.

LONG-FAÇED ANTWERPS.—Any other colour.—Young Cock or Hen—1, s, and

s, S. Dronfield. Ac, S. Dronfield, A. Bingham. c, T. H. Stretch.

WHITE EYES.—Cock or Hen—1 and s, E. Walls, Liverpool. s, S. L. Bellhouse.

Ac, J. Sheppard.

LONG-FAÇED TUMBLERS.—Almond.—Cock—1, J. Guthrie. s, S. Lawson.

Hen—1, J. Guthrie. s, S. Lawson.

LONG-FAÇED TUMBLERS.—Bald.—Cock or Hen—1, s, and s, S. Lawson.

Ac, J. W. Leech.

LONG-FAÇED TUMBLERS.—Beard.—Cock or Hen—1, A. McKennie. s and s, J. W.

Leech, Liverpool. Ac, s, E. H. Morton.

LONG-FAÇED TUMBLERS.—Mottles or any other colour.—Cock or Hen—1 and

s, J. W. Leech. s and Ac, F. H. Morton, Liverpool. s, J. James. c, S.

Lawson.

TIFFLE.—Cock or Hen—1, s, and s, E. Walls. s and Ac, W. J. Warburton.

PANTAIL.—White.—Cock or Hen—1, J. E. Spence. s, H. Simpson. s, W. J.

Warburton. s, T. W. Townson. Ac, S. Lawson, J. F. Loversidge, Newark.

PANTAIL.—Blue.—Cock or Hen—1 and Ac, W. J. Warburton. s and s, J. H.

Cryer.

PANTAILS.—Black or any other colour.—Cock or Hen—1, J. F. Loversidge.

PANTAILS.—Any other colour.—Young Cock or Hen—1, J. H. Cryer. s, W. J.

Warburton. s, J. E. Spence. s, J. F. Loversidge. Ac, J. F. Loversidge, J. H.

Cryer.

TRUMPETERS.—Mottled.—Cock or Hen—1 and s, J. Lederer, Liverpool. s, J.

Gardner.

TRUMPETERS.—Any other colour or marking.—Cock or Hen—1, E. A. Thorn-

ton. s and s, S. Lawson.

TRUMPETERS.—Any colour or marking.—Young Cock or Hen—1 and s, J.

Lederer. s, J. E. Spence. Ac, J. F. Loversidge.

NUN.—Cock or Hen—1, W. J. Warburton. s and s, J. Gardner.

MAGPIE.—Cock or Hen—1 and s, M. Ord, Durham. s, J. Gardner. s, P. H.

Jones. Ac, W. J. Warburton. c, S. Dronfield, E. A. Thornton.

SWALLOW.—Cock or Hen—1, U. E. Duckworth. s and s, J. Gardner.

ARCHANGEL.—Cock or Hen—1 and s, T. W. Townson. s, P. H. Jones. Ac, W.

Sefton. c, F. E. Edwards, Liverpool.

FOURSON.—Cock or Hen—1, W. J. Warburton. s, Withheld.

ANY OTHER DISTINCT VARIETY.—Cock or Hen—1, G. Richardson (Blondinet).

s and s, M. Ord (Fringill). s, H. Vardon. M. Ord. Ac, M. Ord (Tuffed Owl).

S. Lawson (Spangled Ice). c, H. Vardon (s). M. Ord (Damascus and Spangled

Ice).

SELLING CLASS.—Cock—1, J. Stanley. s and s, A. McKennie. s, J. Guthrie.

Ac, O. A. Pearson (Dragon). G. W. Dutton (Black Carrier). c, T. H. Stretch.

A. McKennie. Hen—1 and s, A. McKennie. s, F. H. Jones. s, F. E. Edwards.

Ac, J. Guthrie. Ac, O. A. Pearson.

SELLING CLASS.—Young Cock or Hen—1 and Ac, C. A. Pearson. s, J. Guthrie.

s and s, A. McKennie.

The Judges were Mr. F. Esquilant, Brixton, London; Mr. J.

Hawley, Gillingham, Bradford; Mr. H. Allsop, Birmingham.

## MONTROSE POULTRY AND PIGEON SHOW.

THIS Exhibition was held on the 17th and 18th inst. in the Corn Exchange. The awards were as follows:—

DORKINGS.—1, A. Matheson. s, Mrs. J. Smart.

SHIRAZ.—1, special, and c, Mrs. W. Stevens. s, J. Ogg. s, D. KMA. Ac,

J. Milne, Mrs. W. Stevens.

COCKS.—1 and special, Mrs. J. Davidson. s, A. Bowie. s, Mrs. A. G.

Duncan. s, Mrs. C. B. Taylor. Ac, A. Burnett. Mrs. A. G. Duncan, Mrs.

W. Stevens, Mrs. C. B. Taylor. Ac, A. Bowie. c, Mrs. J. Davidson, Mrs. W.

Stevens.

BRAMMAS.—1 and s, A. Burnett. s, W. G. Duncan. Ac, A. Fullick. c, A.

Burnett. A. Fullick, Mrs. W. Stevens.

GAME.—1 and special, J. Selmond. s, R. J. Nicoll. Ac, W. Nicoll. c, T. W.

Mitchell.

POLANDS.—1, s, and special, J. Taylor. s, Mrs. C. B. Taylor. s, W. H.

Far. Ac, J. Matthew. c, A. Duthie, Mrs. C. B. Taylor.

HAMBOURGERS.—Golden-spangled.—1, J. Taylor. s, W. L. Blyth. s, J.

Milne. c, J. Ireland. Silver-spangled.—1, W. B. Park. s and s, J. M.

Campbell. s, A. Baxter. Ac, G. Beattie, G. Campbell. Gold or Silver-pen-

cilled.—and special, W. B. Park. s, J. Ogg. s, J. Taylor. c, W. Maris.

HOUBANDS.—1, A. C. Mart. s, M. Todd. s, Mrs. C. B. Taylor.

ANY OTHER DISTINCT BREED.—1, W. B. Park. s, J. Marshall. s, A. C.

Mart. c, P. Macdonald.

GAME BANTAMS.—1 and special, B. Brownlie. s, W. Ballie. s, J. D.

Donald. s, T. Harrower. Ac, J. Strachan, D. Ormond, A. Frew, J. Dalg.

c, J. Strachan, Mrs. C. B. Taylor, J. Grive.

BANTAMS.—Sabbath.—1, B. P. Frew. s and c, J. Dallas. s, J. Taylor.

Any other variety.—1, s, and special, R. H. Ashton. Members' Special and

s, J. D. Donald. Ac, D. Duncan, J. Taylor. c, R. C. Frew, J. D. Donald.

SELLING CLASS.—Cock—1, A. Duthie. s, G. B. Dick. s, Mrs. W. Stevens.

Ac, A. Burnett. Mrs. W. Stevens. Ac, Mrs. J. Davidson, J. D. Donald, Mrs.

W. Stevens, J. Milne. c, P. Stewart, J. Taylor, F. McDonald. Hen—1, Mrs.

C. B. Taylor. s, B. Rawlings. s, A. Burnett. Ac, A. C. Mart, F. McDonald,

Mrs. W. Stevens.

DOCKS.—Dylebury.—1, s, and s, A. Burnett. Any other variety.—1, J.

Fowler. s, Mrs. W. Nicoll. s, R. Robertson. c, M. Garland.

GREEN.—1, J. Orell. s, B. Rawlings. s, M. Garland.

TURKEYS.—1, A. Bowie. s, M. Garland. s, J. W. Davidson. Ac, Mrs. C. B.

Taylor, J. W. Davidson.

#### PIGEONS.

FOURSON.—Cock—1 and s, J. Mitchell. s, J. E. Spence. s, J. Day. Ac,

J. Ove. c, T. L. Johnston. Hen—1, s, and special, J. Mitchell. s, T.

Mullion. c, T. L. Johnston. Young—1 and s, J. Mitchell. s and s, J.

Day. Ac, T. L. Johnston.

CARRIERS.—Cock or Hen—1 and s, J. Lamont, jun. s, A. Smith. Ac, J.

Taylor.

BARRS.—1, J. E. Spence. s, A. Burnett. s, A. Dunbar. Ac, R. J. Wilson,

A. Burnett.

TUMBLERS.—Short-faced.—1, s, and special, D. Braah. s, J. E. Spence.

Ac, J. Glenday. Common House.—1, W. & B. Davidson. s, J. W. Davidson,

s, J. Shield. Ac, B. Ross.

FANTAILS.—1, Mrs. A. G. Duncan. s, A. Croable. s, A. Smith.

JACOBINS.—1 and s, W. & B. Davidson. s, J. Matthew.

TRUMPETERS.—1, J. M. Rodgers. s, J. McDonald. s, T. L. Johnston.

TURBETS.—1 and special, A. Croable. s, R. J. Wilson. s, D. Feltie. Ac, H.

Colston. c, J. Taylor.

OWLS.—English.—1, s, and Members' Special, Ac, c, W. & B. Davidson.

s, J. Lamont, jun.

NUNS.—1 and s, J. Lamont. s, A. Duthie. Ac, J. Taylor. c, J. Matthew.

MAPOIRS.—1, J. M. Rodgers. s, B. E. Frew. s, J. Day.

ANY OTHER DISTINCT BREED.—1, J. E. Spence. s, J. M. Rodgers. s, J.

Cove.

SELLING CLASS.—1, A. Burnett. s and s, J. Cove.

#### CAGE BIRDS.

SCOTCH FANCY CANARIES.—Yellow.—Cock—1 and special, W. Wood. s,

W. & B. Davidson. s, D. Clyne. Hen—1, W. Wood. s, J. Shanks. s, G.

Cove.

SCOTCH FANCY CANARIES.—Buff.—Cock—1, J. Shanks. s, W. Moorlie.

Members' Special and s, D. Clyne. Hen—1, W. Moorlie. s, J. Adam. s, W.

Wood.

**SOOTY FANCY CANARIES.—Green.—Cock or Hen.**—1, J. Adam. 2, W. Moshrie. 3, W. Watt.  
**SOOTY FANCY PIRBALS.—Yellow.—Cock.**—1, W. Watt. 2, G. Stewart. 3, J. Adam. Hen.—1, W. Moshrie. 2, T. Leslie. 3, J. Black.  
**SOOTY FANCY PIRBALS.—Buff.—Cock.**—1, J. Black. 2, W. Wood. 3, J. Shanks. Hen.—1, W. Watt. 2, W. Wood. 3, J. Adam.  
**FOUL-FEATHERED.—Cock or Hen.**—1 and Special, W. Moshrie. 2, W. Smith. 3, D. Clyne.  
**COMMON CANARIES.—Yellow.—Cock or Hen.**—1 and 8, D. Clyne. 2, J. Doward.  
**COMMON CANARIES.—Buff.—Cock or Hen.**—1, A. Mathieson. 2, D. Clyne. 3, G. Dakers.  
**COMMON CANARIES.—Piebald.—Cock or Hen.**—1, A. Mathieson. 2, M. Groves. 3, C. Gouk.  
**COMMON CANARIES.—Green.—Cock or Hen.**—1, D. Clyne. 2, A. Mathieson. 3, W. Robertson.  
**NORWICH CANARIES.—Cock or Hen.**—1 and Medal, A. G. Langlands. 2, D. Langlands. 3, J. Balfour.  
**SELLING CLASS.—Cock.**—1, D. Watson. 2, D. Duthie. 3, D. Clyne. Hen.—1, J. Doward. 2, D. Duthie. 3, D. Welsh.  
**GOLDFINCH.—Cock.**—1, A. Mathieson. 2, J. Matthew. 3, J. Burness.  
**GOLDFINCH MULE.—Cock.**—1, G. B. Dick. 2, J. Doward. 3, J. Monro.  
**BULLFINCH.—Cock.**—1, T. M. Millar.  
**SISKIN.—Cock.**—1, J. Monro. 2, A. Harris. 3, W. Clark.  
**SISKIN MULE.—Cock.**—1, W. Anderson. 2, J. Peables. 3, J. Taylor.  
**LINNET.—Cock.**—1, A. Harris. 2, T. Reid. 3, J. White.  
**LINNET MULE.—Cock.**—2, A. Taylor.  
**STARLING.—Cock.**—2, A. Mathieson.  
**LARK.—Cock.**—2, A. Middleton.  
**PARROT.—Grey.**—1, W. C. Clark. 2, W. Cruickshank. 3, W. Smith. Any other variety.—1 and 2, C. Hutcheon. 3, J. Matthew.  
**COCKATOO.**—2, Mrs. Edwards.  
**PARAKEET.**—1, W. Cruickshank. 2, A. McLellan.  
**BEST AND MOST VARIED COLLECTION OF BIRDS.**—1, W. Cruickshank. 2, W. Robertson.  
**RABBITS.**—1, Mrs. Roberts. 2, A. Frew. 3, G. Douglas.

The Judges were for Poultry Mr. Hutton; Pigeons, Messrs. Huie and Ure.

### SWANSEA SHOW OF POULTRY, &c.

ONE of the best, if not the very best, Shows ever held in Wales was that at Swansea in the covered market on the 9th instant.

**Dorkings** headed the list, the whole being Dark Greys and an excellent lot, the cup being awarded to old birds. *Spanish* were very good, but not numerous; but of *Game* there were great numbers. The Black Reds were a fair lot, but some of the hens were so much overtrimmed round their eyes that there was no alternative but to leave them out. Brown Reds were a better lot than the Black Reds, the cup for *Game* being awarded to a handsome pair of old birds. There were some White *Game*, which, though good of their kind, were not equal to the rest. In Any other colour of *Game* the first were old Duckwings, very good in all points; the second Piles, the cockerel being undubbed; the third also Duckwings. Buff *Cochins* were very good, the shape and style of the winners grand and very close in quality. In the next class first were Partridge chickens, second old Whites, and third nice Blacks. The *Hamburgs* sections were a great success, the winners being very good. The Gold-spangles very good, and a close run, the first hen only turning the scale, and she is a truly grand bird. The cup for Spangles was won by Silvers, the second losing by the cock being scarcely as well spangled on the tail hackle, and a twist in the earlobe. The Pencil cup was won by the Hanley cup pen, a pair of birds that need no comment; the second in this class contained a grand pullet; but with the exception of the two first the Silver-pencils were not good. Black *Hamburgs* were very good as regards the winners. *Polish* were both numerous and good, the cup for these two classes going to a grand pen of Silver *Polish*. Dark *Brahmas* were good in the old but only moderate in the young class, but the Light variety were really grand in all respects. *Houdans* were a fair class, the winners good, and with fair good combs. Brown *Leghorns* a fair lot, while the *La Flèche* and *Crève-Cœur* were very good, the cup won by the first *La Flèche*. In the Variety class Red Malays were first, Sultans second, and Minorcas third. *Game Bantams* were not good as a class, but the winners were very good Black Reds, the cup for Bantams being awarded here. In the Variety of Bantams the winners were Blacks. *Game cockerels* were a large but not a good class. The first-and-cup was a handsome Duckwing, the second an undubbed Pile, and third a Brown Red, rather thin, but of promising quality. *Game pullets* were a fair lot. The first Brown Reds, second and third Duckwing; but the best of all was a Pile too late for competition.

*Ducks* were pretty good in all classes. *Geese* and *Turkeys* very large and well shown.

There was a point cup for *Pigeons*, which was won by Mr. Spencer of Hereford. Carriers were exceedingly good in both classes. In cocks, first was a Dun and the others Black. The winning hens Dun. Pouters were of fair quality, but not as large as is desirable, Whites winning all, except the first in hens, which was a Blue. Of Almonds only two pairs. In the other Tumblers the first were Kites, second Yellow Balas, and third Blue Beards. Antwerps were only good as regards the

winners. The winning Jacobins very good. First Reds, second Yellows, and third Reds. In Fantails were some good birds, but these were shown well in pairs. Turbits a good class, and an extra prize given. First and second Blue, extra second Red, and third Blacks. Owls, which were mostly Whites, were the best class in the Show; the first-prize pair very good in head. Nuns were very good, as also the Magpies, but the Dragoon—only a moderate lot. Mr. E. Hutton, Pudsey, Leeds, was Judge.

**BEDALE POULTRY SHOW.**—This was held on the 14th inst. There was a good show of Poultry, Pigeons, Rabbits, &c. The entries exceeded last year by 108. The quality of the birds was good in nearly all the classes, and competition close in some of them. The Show was held in the Drill Hall, which was too small for the purpose, and the light was not very good, which made the judging difficult.

### OUR LETTER BOX.

**GRINDING CORN FOR POULTRY (J. H. G.).**—We have been for many years successful breeders and feeders of poultry. Our system has always been to give ground food morning and evening, and whole corn at midday. This keeps running fowls in perfect condition. If it is intended to keep all in more than good condition—i.e., as fit to kill rather more than moderately fat, in the state known as "peckers," we should give none but ground and slaked food, and should feed four times daily. The consumption would be little more than when fed three times, the difference is only in trouble and labour. Economical feeding is to give ground food slaked, either barley-meal or ground oats, morning and evening; whole corn midday. If any amateur will superintend the food three days he will find out the average. This does not increase, rather decreases. It is then easy to fix the consumption. We give the result of many years' close observation. We give no other food. Excepting when there is snow on the ground we always scatter it broadcast. It tends much to health and well-doing if fowls have to search for their food.

**DORKING COCKEREL.**—Mrs. G. Pasley writes to us that her Dorking cockerel won the third prize at the Crystal Palace, and that she still possesses him.

**COCHINS AT SWANSEA.**—The second prize was awarded to Mr. E. S. Woodgate's Whites, and not to Mr. B. Wingfield, as stated last week.

**BEE-KEEPING IN N. SCOTLAND (J. S. Huxley).**—The MS. has not been received.

**FEEDING BEES (Alpha).**—At this season the bees of healthy hives carry out their dead every fine day. Those you find at the entrance of your hives have died by reason of their age and been cast out. Your bees have not yet suffered from want of food, but your way of feeding them is faulty, seeing you find two or three dozen of bees drowned in the trough every time you use it. Bees cannot ascend on smooth surfaces—all deep feeding dishes and cylinders should have their inner surfaces made rough in some way, or be lined with perforated zinc. We do not think your bees will die of want for a few weeks; but to make all safe we advise you to take them into a warm room of your house for a time, and then feed them with warm syrup, confining the bees to their hive of course while in the house. Remember next year to give your bees all they want for the winter in September.

**PRICKLY COMFERT.**—"G. M." asks: "What cultivation and what soil suits it, and if it is suitable food for Alderney cows?" We shall be obliged by anyone answering these questions, for we have no experience to rely upon.

### METEOROLOGICAL OBSERVATIONS.

CAMDEN SQUARE, LONDON.

Lat. 51° 33' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.					IN THE DAY.					Rain.
1875.	Barom. at base and Sea- Level.	Hygrome- ter.		Direction of Wind.	Temp. of Soil at ft.	Shade Tem- perature.		Radiation Temperature.			
Dec.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
	Inches.	deg.	deg.		deg.	deg.	deg.	deg.	deg.	In.	
We. 15	30.183	35.3	34.3	S.W.	56.3	59.1	53.8	59.0	51.4		
Th. 16	30.141	35.1	34.9	W.	57.6	55.8	54.5	57.3	54.3	0.010	
Fri. 17	30.077	33.8	33.8	S.E.	57.7	45.1	33.7	55.6	34.5		
Sat. 18	29.898	42.0	41.2	S.	58.0	45.4	34.8	47.2	32.3		
Sun. 19	29.620	47.0	45.8	S.	58.6	47.8	41.3	52.3	35.4	0.013	
Mo. 20	29.709	45.8	43.7	S.W.	47.0	51.5	38.8	52.6	34.4	0.135	
Tu. 21	29.904	43.7	41.4	S.W.	41.8	50.3	42.8	52.1	37.8	0.035	
Means	29.919	40.9	39.9		58.5	45.1	37.0	50.8	34.3	0.023	

### REMARKS.

15th.—Fine all day, but dull and very dark, especially in the afternoon.  
 16th.—Foggy and dark all day, but darker than caused by the fog, which was not very dense.  
 17th.—Foggy, but not so dark as yesterday; fine at times, but rather damp.  
 18th.—Still rather thick; a dull damp day, but no rain.  
 19th.—Rain all the forenoon, very bright at times between 1 and 2 P.M., dull afternoon, but starlit night.  
 20th.—Fine morning but soon clouding over, and rain at noon and in afternoon; windy at night.  
 21st.—Rain in the night, but the finest day though but very little sun. Rain and gale at night.  
 A dark disagreeable week, about 4° warmer than the preceding.—G. J. SYMONS.

### COVENT GARDEN MARKET.—DECEMBER 22.

THE Market is still well supplied with all classes of goods, but there is great difficulty in clearing common samples. Large quantities of St. Michael Pines are now arriving, making a complete drug of the English fruits.

## WEEKLY CALENDAR.

Day of Month.	Day of Week.	DECEMBER 30, 1875—JANUARY 5, 1876.	Average Temperature near London.			Sun Rises.	Sun Sets.	Moon Rises.	Moon Sets.	Moon's Age.	Clock after Sun.	Day of Year.
			Day.	Night.	Mean.	m. h.	m. h.	m. h.	m. h.	Days.	m. s.	
30	TH	Royal Society instituted, 1660.	44.4	31.7	38.1	9 48	57 48	18 10	27 46	8	2 56	361
31	F	Joseph Sabine died, 1837, <i>et. 87</i> .	43.9	33.4	38.3	9 8	58 8	36 10	44 7	4	8 54	365
1	S	CIRCUMCISION.	43.0	30.8	36.6	8 8	59 8	50 10	9 0	5	8 58	1
2	SUN	2 SUNDAY AFTER CHRISTMAS.	41.9	28.9	35.4	8 8	0 4	1 11	17 10	6	4 21	2
3	M	Victoria Institute at 8 P.M.	42.6	28.6	34.4	8 8	1 4	12 11	34 11	7	4 49	3
4	TU	Zoological Society at 8.30 P.M.	42.3	27.3	34.8	8 8	8 4	23 11	morn.	8	5 16	4
5	W	Entomological Society at 7 P.M.	41.4	26.6	35.4	8 8	4 4	36 11	54 0	9	5 43	5

From observations taken near London during forty-three years, the average day temperature of the week is 42.8°; and its night temperature 35.3°.

## A NEW YEAR'S GREETING.



Will you write our new-year's address for us?" How very easily and jauntily these words were written, but how difficult to comply with when one remembers how the same thing has been done in years past by "WILTSHIRE RECTOR" and other friends. At first "I didn't see it," but as I sat meditating on that reply, and watching the glowing coals of a good fire in front of which I was sitting, it seemed to me to savour of cowardice; and as I gazed still further there seemed to me to come up "faces in the fire" which reminded me of things past, and so I deemed it possible by revealing their teachings to say a few words that might be of profit to the many readers of "our Journal," in whose continued prosperity we delight to feel that we all have an interest.

Ah! there is a face that brings me back to some five and forty years, when as yet, save in a youngster's love of "posies," the love of flowers had not been developed—a schoolfellow, who lived near to us in the neighbourhood of Dublin, asking me to come and see his "Uncle Joe" beds of Ranunculus. I went, and was fairly conquered. I have never since then seen beds equal to them, although as yet Mr. Lightbody and others had not tried their hands at hybridising; and from that time forward I became a lover and grower of flowers. Little did he, whose face I see before me, think how much he was doing for me then—how he was starting me on a line which, if it has not brought me unmixed pleasure, has tended to give me much real enjoyment, and has made for me many friends, of whom, indeed, a large number are cherished in memory only, but many, I am thankful to say, still to be greeted. Time rolls on, and now I see another beaming face, fair as are the flowers she gazes on (smile not, I was married at the time), my garden then on top of a cliff overhanging the sea, from whose blasts I could only protect my flowers by erecting a Gorse fence. But, oh! how many pleasant days did that little garden give me, and how readily I forgave the same young damsel when she picked some of my choicest Carnations and Picotees! And now what a change! I am in a small house with a "bricklayer's garden" at that cockney watering-place Ramsgate; but even there the old love will not be daunted, and out of that square piece no larger than an ordinary room I had as many flowers and as much enjoyment as many of my neighbours with places three times the size. And yet once more: A change again, and I see many a face associating itself with dear old Deal, where for nearly twenty years, in a piece of ground forming merely a part of a field, I was enabled to grow so many things that friends sometimes wondered whether my imagination was not larger than my garden. During that time many a friendship was formed which was founded simply on a common love of flowers; amongst them I am proud to reckon the two "venerable fathers" who preside over the destinies of "our Journal." It was

then some fifteen or sixteen years ago that by our common friend John Standish I was introduced to them, and commenced that connection with this Journal which has been to me so full of pleasure and so mixed up with the doings of these last years of my life.

If I have thus far been egotistical it is because I want to give a word of encouragement from my own personal experience. One cannot have lived close upon sixty years without having had a share of those troubles and anxieties for which we are told man is born; and I want to tell my brethren, whether lay or cleric, male or female, professional or amateur, that there is nothing of things essentially connected with this life that has more tended to soothe and solace me than the enjoyments of a garden. When worried with the anxieties of a large parish, or perplexed with those domestic sorrows which we all share, I have often turned to my garden and found in the company of some of my favourite flowers gentle voices speaking to me words of quietness and rest. One's mind can hardly fail to be lifted up at such times to Him who made these very flowers the text of His sermons; and the thought will then come, If He takes care of these will He not take care of me? And to all, whether they be dwellers in town or country, I would say as their best friend, Yourselves cultivate and encourage in those over whom you may have any influence a love of flowers. It can hardly fail to do good, to elevate and refine; and I look upon the increased facilities which have been given to the cultivation of flowers in our huge metropolis as a hopeful sign, tending to give even our roughs something to look upon and think over better than those things in which they can alone see pleasure—better than rat hunts and dog-fighting, and such like brutalising pursuits.

If I turn from these generalities to the more special affairs of our Journal I think we have cause to felicitate ourselves on the fact that it has not only not diminished in interest, but increased. There is not one of the readers of it who, I am sure, is not glad to think that our "most potent, grave, and reverend seigneurs" still wield (not the bâton of command, or the battleaxe of slaughter, but) the pen of friendly criticism and revision. I am not in the secrets of the prisonhouse, but I shall not be far wrong in saying that to their wise and firm use of the pen in cutting out smart (but bitter) sayings, and in toning down the force of expressions of which the writer did not see the danger, we owe a great deal of that kindly feeling which exists amongst the contributors and readers of the Journal. And go where one will, such is its character that the very announcement of a connection with it is sure to be a sufficient passport in horticultural circles. I think we shall the more felicitate ourselves on this when we recollect that one of them has during the year performed an action which I can only compare to that of Quintus Curtius leaping into the gap on the Roman Forum, in accepting the post of Secretary of the Royal Horticultural Society. It was an act of self-devotion, one in which "monkeys' allowance—more kicks than ha'pence," was all he might expect; and we must only hope that he will not meet the fate of that redoubtable

hero of Roman history, but come back safe again from his perilous enterprise.

In that part of the Journal in which I am most interested I think we can fairly say that although time has made changes, and that one after another of those who ministered to our gratification and profit have passed away, yet their places have been filled by no mean successors. We have missed for years the admirable papers of Donald Beaton, R. Fish, W. Keane, and others, but we have still amongst us those to whose contributions we turn with interest, knowing that we shall find sound practical teaching, and neither the fanciful notions of theorists nor the windy pretensions of would-be philosophers. Let not those who pursue one hobby grumble if the paper is not full for them week by week; such persons seem to me for all the world like those passengers in a railway train, who are always growing because it stops at so many small stations, forgetting that the inhabitants of those places have as much interest in the train stopping there as they have in its stopping at the larger towns to which they belong. So let not the Orchid-grower grumble because so much is taken up by Roses, or the Rose-lover growl if other flowers beside the queen come in for their share. No; "share and share alike" must be our motto. Nor is it without its use that the contributors record their failures as well as their successes. The past year has not been an "*annus mirabilis*" with horticulturists. A more unpropitious one they have rarely had to combat with, although it has been a fighting with the elements. Many of our first-rate growers have recorded in our pages the shifts to which they have been put and the difficulties they have had to surmount; and many an owner of a small garden has been considerably cheered by finding, not that he had companions in misfortune, but that which he had to contend with had been experienced by those who had ample means at their command, while their mode of overcoming difficulties suggested to their humbler imitators how they might do the same. And as it has been to the horticulturist so has the last year been to the aparian and poultry fancier; the former has had to mourn over the worst year he has, perhaps, ever known, while the complaints as to losses in the poultry-yards have neither been few nor faint.

And now a word or two as to the future. There is no fear of the interest in horticultural pursuits flagging. The circle of its devotees seems ever widening, and the efforts of those who introduce novelties from distant lands or produce them in our own do not relax; and if this be so we may rest assured that the interest in our Journal will not relax either. Week after week thousands will eagerly welcome its arrival as a messenger of good will. It will come fraught with no sensational tales, no deeds of horror and shame; but full of wise and careful instructions, of wisdom gleaned in the past and encouragement for the future; and while those who have already so much contributed to our enjoyment and its success will still employ their pens on its behalf, I would that many whom I could name, who are quite as capable, would give us the results of their experience and tell us of their triumphs, losses, and failures, for in horticulture, as in many things, "in the multitude of counsellors is wisdom." Their contributions would be readily welcomed by those who rule our destinies, and we should all benefit by them.

Such are a few of the things which have come to my mind as I have thought over my reply to the question put to me from Fleet Street. And now as a last word may I, as one of the oldest contributors to the horticultural side of our Journal, wish to all our friends a happy new year in the enjoyment of their favourites? and as I should never forget that I am something other and better than a writer on horticulture, may I express a hope that they will not forget that everything here, like the flowers they cherish, is but transitory, and that it behoves us all to look forward to the time when we shall have to join those who have "gone before?" And then may it be ours thus to realise in that Paradise of God, of which Eden with its flowers and fruits was but a faint type, that state of blessed rest when we shall no longer sigh over the memories of the past, or look forward with trembling to the unveiling of the future. And so, my gentle readers all, may you enjoy in its highest, noblest, truest sense,

A HAPPY NEW YEAR.

—D., Deal.

FRUITING OF DOUBLE PEACHES.—Mr. Meehan exhibited some branches of Peach in which the young fruit were twos and

threes from one flower. They were from the Chinese double-flowering kind. He remarked that, as is well known, plants with double flowers were rarely fertile. Either the stamens were wholly changed to petals, or the less vital conditions which always accompanied this floral state were unequal to the task of producing perfect pistils. Vitality, however, was more or less affected by external conditions independently of the mere structure of organs, and this was well illustrated by the remarkable fertility of the Peach this season. Usually large numbers of fruit fell without "setting," as it is technically called by orchardists, not because there was any defect in the organs of reproduction, but from lack of vital force to accomplish so much. This season many more had continued than had been known for many years, and the prospect was for an immense crop of fruit. This abounding vitality had evidently extended to the double Peaches, and had influenced the development of the female organs to an unusual extent.—(*Proceedings of the Philadelphia Academy.*)

### REPOTTING AURICULAS.

A CORRESPONDENT ("ALFRED") wishes to know what shall be done in February with Auriculas that are now rooted up to the top of the soil and through the bottom of the pots. Shall they have a shift? and if not, how shall top-dressing be managed without disturbance of the fibres, and shall offsets be then removed or left on till the May potting?

I remark that it is not stated in what sized pots the plants already are. If they have thus filled 4½-inch or 5-inch pots they are in fine order underground, and presumably above also, and I should not meddle with them. A full-sized florist Auricula has room enough in a 5-inch pot to bloom in perfection, and cannot be too well established in that size. It is worse to over-pot than under-pot these plants. What would be the ruin of a Balsam is the delight of an Auricula.

As the collection in question was repotted in May, with compost probably containing ingredients such as old manure and leaf mould that by this time are compressible into a somewhat less compass, it will be found that a firm and broad, but it must not be a sudden pressure, upon the surface soil will make room for the half-inch or so of top-dressing. The soil must not be thus pressed down if wet or newly watered, and care must be taken to see that the drainage is in good working order.

If the plants are large and in pots manifestly small—say about 8 inches—then those that are so rooted as described may have a shift into 4 or 4½-inch pots, and in that case the room for top-dressing can easily be allowed for.

As to removal of offsets, by all means let those be taken off in February, whether rooted or not, that have any neck of their own. Take them off when growth sets in, and disturb the old plant as little as may be. Many rooted offsets can be drawn out by a patient and judicious handling soon learnt, and will soon re-establish themselves although one of their fibres is sacrificed in preference to breaking the ball of earth to find the end of it.

The removal of offsets early in spring is advisable, not merely because they are otherwise apt to draw upon the resources of the old plant, but also because they may be overlaid and drawn by the overlapping parental foliage, and in an insufficiency of light and air become infested with green fly.—F. D. HONNE, *Kirkby Maseard, Ripon.*

### COVERING VINE BORDERS.

I AM not sorry that Mr. Robson has again opened the question of covering or not covering Vine borders. I think gardeners will never be tired of reading and writing about growing (and I ought to say keeping) Grapes. As Mr. Robson observes, we want experience of failure as well as success; we want practice more than theory.

My opinion, which is gathered from experience, is to cover the borders early and late. As to the material employed, it ought to be something that will entirely keep off the rain. For several years I covered with leaves from a foot to 18 inches deep, and then thatched with straw as well and as carefully as I would a corn stack; but when I uncovered them I found the borders very wet, particularly near the front, for owing to the little incline of the thatch a large portion of the rain went through the leaves.

I found in January the temperature of the border at 1 foot deep was only 6° warmer than the open ground; I also found

a few feet from the vinery that the heat of the leaves had caused a strong root action, for the roots had grown several inches and were matted into the leaves, but they had nearly all perished. I had carefully taken the time of the men collecting leaves, thatching, &c., also the value of the straw, and we found that it would cost as much in eleven years as we could cover the whole with glass, consequently the whole of three borders have been covered with that material. We find the lights very useful during the summer for various other purposes.

I know a Vine border in this neighbourhood that is only covered with fresh dung in autumn; the Grapes grow fine until they begin to ripen, then they completely fail: this has been the case for several seasons. I think it more needful to exclude wet than to create artificial heat. On my borders I put about 6 inches of nearly fresh stable dung; then (except the late house) leave it to have a thorough soaking of rain to take the food down to the roots, ready for them when they begin to grow, also to wet the border to its bottom; then I put on the glass, where it remains until I think the open ground is as warm as the covered border. I generally have to water twice before I uncover.

As to the late Vines, I put on the dung as on the earlier borders, but after September I do not let any rain fall on the border until all the Grapes are out. I then take off the glass and let the border have a thorough soaking of rain for several days, then cover up as before.

With regard to keeping late Grapes, it is of more consequence to have a dry atmosphere than dry roots. This autumn I put on the glass; not a drop of the heavy rains fell on the border, but owing to all the hot-water pipes being altered and no boiler in, with wet soil turned up where the mains are along the back part of the house, I could not keep a single bunch of either Muscat, Alicante, Lady Downe's Seedling, or West's St. Peter's. I have experienced this before, when I could not apply heat to dry the atmosphere.

It is very essential that late Grapes be ripened early. If they are to keep well they ought to be ripe by the middle of September.—D. WALKER, *Dunorlan*.

#### PEACH FORCING.—No. 6.

**WATERING.**—Trees—deciduous trees no more than evergreens—require during their resting period a soil "dry as dust," and it is altogether a misconception to attribute any good resulting therefrom, either as regards further ripening of the wood, for that ceases with the fall of the leaf, or as promoting greater rest. Instead of dryness whilst at rest being beneficial, I am certain it is in most instances and with most subjects positively injurious, for trees transpire by their bark when the atmosphere is dry, which, with the roots in a dry soil, causes a speedy exhaustion of their juices. The consequence of this is a certainty of weakness at starting, if not of after-debility, for fruit trees in autumn emit in most instances direct from the root-stem adventitious roots, thick, spongy, and white; but if the soil be dry those roots are never emitted, nor are they emitted until spring if the trees are moved after all the leaves have fallen, or the act of removal destroys them, and they are not afterwards put forth: hence the potting of fruit trees in pots is done whilst the trees are in leaf, experience having shown the disastrous consequences of performing the operations after the trees are leafless. Apart from the promotion of adventitious roots, moisture in the soil maintains the shoots and buds fresh and plump, for if the fibres or their soft unripened parts die as do the leaves, which I have maintained and still do maintain, the root-stems from their sides will absorb sufficient moisture without the presence of spongy, as is the case with trees transplanted after the fall of the leaves, and upon the presence of this moisture in the soil is dependant the retention of the bloom buds.

Instead of keeping the roots dry whilst at rest I advise that the borders, when the leaves of the Peach and Nectarine trees under glass have all fallen, be given a thorough watering, loosening or breaking the surface if it has become cracked from being hard and dry, and taking care that as the soil may be dry it will require considerably more and longer-continued watering to bring it into a thoroughly saturated condition. No fear need be entertained of rotting the roots, as the Plum outdoors must have during the winter season a rainfall of 12 to 15 or more inches, and it is noteworthy that Peach trees outdoors subjected to this heavy rainfall do not drop their buds, whilst those under glass kept dry at the roots do, which is

primarily caused by an exhaustion of moisture from the tree, though the effect may not become apparent until water is applied to start them into growth, but causing the buds to be cast in a shower, which a timely application would have prevented. Never was sounder practice recommended than that of Mr. Douglas—viz., the placing of pot Peach trees outdoors in the autumn. The trees suffer no injury, the pots being plunged; the buds do not drop, starting when returned to the house with a vigour not exhibited by those kept in the house with the pots stood on the borders and kept dry to save the roots from injury from frost. It is bad practice keeping the roots of trees dry whilst at rest, which naturally receive a rainfall very little less at that period than during that of growth.

Not only after the leaves have fallen should a thorough watering be given, but before starting again repeat it, so as to bring the soil into a thoroughly moist state; and this is of some importance, inasmuch as it is not desirable to have to water after the blossom expands, as, if the weather be dull, the watering causes too moist an atmosphere for setting, and the young fruit does not swell kindly if recourse is had to watering immediately the fruit is set, as the watering causes an excessive supply of sap which the trees have not leaves to elaborate, and the growing parts are stimulated, the production of shoots being rapid, whilst the fruit drops from not growing equally fast. If the soil be in a thoroughly moist state when forcing is commencing no water will be required until the fruit has attained the size of horse beans. The trees by that time will have some foliage, and their drain upon the soil for nutriment by the roots considerable. From this stage and onward the supply of moisture to the roots must be liberal, and it must be given at a temperature equal to that of the mean of the atmosphere, for though watering with water less in temperature may not cause any present apparent evil, it may cause the fruit to swell irregularly, if not to cause its subsequent falling.

Wherever forcing is carried on there should either be in the house a cistern of sufficient capacity to water not less than a fourth of the extent of the border, never using it until the water has been in the house twenty-four hours; or if the house could not conveniently have within it a cistern to water the whole extent of the border at once, which is certainly more desirable than watering a part of the border daily, it may be sound economy, as it certainly is sound practice, to employ water not less in temperature than that of the border at the time of application, which may be easily ascertained by a ground thermometer, and to effect this hot water may be drawn from a cistern for heating to a proper temperature; but a preferable plan to either is to have a large cistern conveniently situated in a shed, and of such size as to water a considerable part, if not the whole, of the border of a house at once. The supply should be regulated by a tap. To heat the water in the cistern we have only to connect a lead pipe (inch bore) to the main flow of the heating apparatus, entering the bottom of the cistern at one end, and a corresponding pipe at the other end, and connected with the return pipe of the heating apparatus, and upon both these pipes should be stop-cocks, closed when the water is being drawn off or not required, and open to heat the water in the cistern. The level of the water in the cistern should be that of the water in the supply cistern of the heating apparatus. A pipe from the cistern leading through the wall into the houses will, of course, be needed, and being fitted with a tap to receive a hose pipe, the water from the cistern may be used anywhere with a hose pipe whose level is below that of the bottom of the cistern. With means for warming the water employed there is nothing to fear, but without such means much to dread. We find in all works on gardening water is to be given at the temperature the plants are growing in; but not many places have means for giving this essential element at its proper temperature, or only in very inadequate quantity, for the dribbles from watering pots are for fruit borders useless, they not requiring gentle waterings, for that is given by syringing, but a thorough wetting of the soil to its fullest extent. Any excess will, if the drainage be good, pass away.

Now, after the fruit has attained the size of horse beans a good watering should be given, and repeated every fortnight until the leaves are full-sized, after which water every ten days, continuing this until after the stoning, and then water every week until the fruit is ripe, and after about the fourth of the fruit is gathered let the watering be at fortnightly intervals, giving such waterings, say every three weeks, after a month from the fruit being all gathered as will keep the soil

in a moist state, which is essential to the maturation of the buds and the maintenance of the foliage in a healthy state. Excess of moisture after the fruit is gathered only tends to growth, whilst dryness causes the leaves to fall prematurely whilst the buds are imperfectly developed and the wood not fully ripened. Considerably less moisture is, of course, required after the fruit is gathered, but it is nevertheless an error to dry Peaches into ripening of the wood as speedily as possible after the fruit is ripe; then, as at other times, they require a moist soil. As to the amount of water to be applied, that is to some extent influenced by the condition of the trees and their occupation of the border by roots. Young trees will require greater watering near the stem and less at a distance than older trees, gross-growing trees requiring careful watering, for to water such very freely is only to make them more gross, and weakly trees will need less but more stimulating nutriment than those trees having that happy medium between grossness and weakness.

The quantity to be applied at a time is expressed in terms indefinite, as "moderate, copious, liberal, free, and thorough soaking." I have often wondered how amateurs interpret these terms—I do not intend to include in that category those amateurs as well skilled in watering as most professionals, but the novices, to whom I may just give a hint. A plant in a pot with the soil half an inch below the rim will receive every time it is watered the equivalent of half an inch of rainfall, or about as much as usually is given by the clouds to the earth in a week; an inch below the rim will represent an inch of rainfall, and 2 inches below the rim 2 inches of rainfall. Now it follows that half an inch of rainfall will only penetrate or moisten soil to its retentive power to half the depth of that having an inch, and the inch to only half the depth of 2 inches, and if we put it this way we are not far wrong. Half an inch of water space will moisten soil 4 inches deep, it not being other than so dry as to maintain a plant fresh, but if flagging from dryness two or more such waterings may be required to thoroughly moisten the soil. An inch will penetrate 8 inches deep, and 2 inches 16 inches or more deep. No one knowing anything of plant life would water a plant if the soil was already wet, and it is not presumed that anyone will ignore such a condition in the application of water to fruit borders. It may be that water is advised to be given every fortnight, but it is not considered that anyone will not exercise his own judgment as to whether the soil is not already moist and does not require it, deferring the watering in such case until such time as it is needed, or giving the watering sooner if required. A light open soil requires twice the quantity of water needed by a close heavy one. An inch of rainfall is equal to half a gallon of water per square foot, or four gallons and a half per square yard. Granted we have a house to water 60 feet by 12 feet, we shall require 360 gallons of water—the equivalent of 1 inch rainfall, and for this purpose we shall need a tank or cistern containing 360 gallons of water, or of these dimensions 6 feet long, 3 feet wide, and  $3\frac{1}{2}$  feet deep, internal measurement, containing 68 cubic feet, which at six gallons per cubic foot would give 378 gallons; but as there is always some waste in artificial watering, and as some parts of the border will require more than the quoted inch to bring it into a moist state, or equal to other parts, we should not have a cistern of less size than one-half greater in water-holding capacity than the quantity required to give the equivalent of an inch of rainfall, as we must bear in mind that natural waterings are gradual, whilst artificial are "downpours," much of it passing away by parts of the border more porous than others without passing gradually down equally as in the fall of rain.—G. ABBEY.

#### ISLE OF JERSEY.

THE following is an extract from a letter dated the 22nd inst., from a resident in the island. Even the name of the locality—Val Plaisant—is genial. "All the time of that severe frosty weather in London we had no frost, and but a very slight fall of snow, which melted as soon as it fell. We have some Carnations in full bloom in our garden, and the Geraniums are still quite flourishing."

We have often expressed our surprise that invalids needing a mild climate do not steam over to Jersey, which is about one hundred miles from our southern coast, and is reached in a few hours.

Evidence of the greater mildness of the climate, even than that of our south-western counties, is proved by the fact that

plants in the island require no protection which have to be sheltered in Devon and Cornwall. In no place does the Apple tree flourish better or bear more unfailingly; its orchards are so numerous as to be a feature of the island, and its Chautmontel Pears, both for size, excellence, and abundance, are justly celebrated. One weighing  $30\frac{1}{2}$  ozs., was exhibited some years ago. Nowhere is the Parsnip grown finer or to greater extent; its culture is a peculiarity of the island, and is called "*la grande charrie*." The soil has to be stirred very deep, and a plough requiring many oxen or horses is employed, and as these cannot be supplied from one farm neighbours unite their teams; and this ploughing is a holiday, for not only are cakes and cider provided during the day to the owners of the cattle, but the day concludes with a supper. The Guernsey Lily (*Nerine sarniensis*) is common, but does not flourish so markedly as in Guernsey. Some of our readers may not know the narrative of its introduction. Dr. Morison says a ship coming from Japan with bulbs of this flower on board was wrecked on some of Guernsey's many rocks; the bulbs were thrown by the waves on to the sandy shore, and were soon buried there. They produced flowers in due time; and the second son of the Governor, Lord Hatton, being fond of flower-gardening, cultivated them, and sent bulbs to many persons in England. This was in the reign of Charles II.

#### OUR BORDER FLOWERS—HELENIUMS.

SOMETIMES we meet with some of our neglected border flowers quite unexpectedly, and on the question being asked, "What have you here?" a common reply is, "Oh, it is an old plant we take no notice of. We don't care about such plants here;" but these plants ought to be cared for, for nearly all our border flowers possess attractions rendering them worthy of cultivation. Seldom do we meet with any of this family of plants in our fashionable gardens; a few of them may be seen in choice private collections, and can only be looked on as rarities. They are a race of plants that will thrive in any ordinary garden soil, but are all the better for being liberally treated. Loam and well-decomposed vegetable matter, and coarse sand mixed with the soil where they are intended to grow (and the ground should be broken up to the depth of 18 or 20 inches), will afford them the sustenance they need. They should have thorough drainage, and be supplied with water when required. Some of them, growing from 2 to 3 feet high, require staking to keep them from being broken by the wind. They may be increased by division in spring or autumn, and they flower towards the latter end of summer and in autumn.

*Helenium pumilum* is the dwarfest of the tribe, and is a good border plant, having bright yellow flowers, which make a fine display when well established. *H. Hooperii* is decidedly the best of the family. This plant is so seldom seen that it cannot be much known to cultivators of herbaceous plants, or I am inclined to think it would be more frequently met with. When planted in open spaces in the shrubbery in good soil it is extremely effective. To see it in all its beauty the weakest growth should be thinned out, and the plants be supplied with liquid manure water occasionally. It is excellent for exhibition purposes, and continues long in bloom. *H. autumnale* is a fine autumn-blooming plant of taller growth than the preceding, and is well adapted for border or shrubbery decoration, producing large flower heads, which continue until they are destroyed by frost.—VERITAS.

#### ROSE OF JERICOHO.

THIS is *Anastatica hieracifolia* of botanists, which the monks of old invested with such miraculous powers, and which the people regarded with such superstitious veneration. The plant is small, bushy, and not above 6 inches high; after it has flowered the leaves fall off, the branches and branchlets dry and shrivel up, incurving towards the centre, and, in fact, forming the plant into a sort of ball. They are easily uprooted from the sand by the winds, and are carried, blown and tossed, across the desert into the sea. When they come in contact with the water the plant unfolds itself, the branches are expanded, the seed-vessels open and relieve the seeds, which are conveyed by the tide and deposited again on the shore. They are carried hence by the winds away into the desert again, and there they take root, producing plants which in their turn perform the same strange part in the economy of creation. It was to this property of expanding



when placed in contact with moisture which induced the marvellous and superstitious importance of the plant, and it was believed that this appearance always took place on the anniversary of the birth of our blessed Saviour. The plant may be kept for years if taken up before it is withered and then preserved in a dry room; at any time when the root is put in a glass of water, or the whole plant immersed, it will expand, and, in the course of a few hours the buds of flowers will swell and appear as if newly taken from the ground.

Possessed of extraordinary vitality is the plant now figured. It may be called a toy plant, and few other toys will give more salutary teachings. It is also appropriate to the period. The old year is closing and the new year opening; the plant is old and collapsed, apparently dying; but nourish it, and in the few hours still remaining of the old year the plant and new year will awake together.

Further, both the plant and year are what we make them;

level, but which in reality is not so; nevertheless, the whole work is of such a nature that without some judgment at the commencement as well as in the process of the work, some great error may be run into which may render the ultimate completion of the work both difficult and needlessly costly. To obviate this let us take a survey of the whole before a spade is put in. By the exercise of some of the rules of geometry, aided by what is still more serviceable—the judgment of the eye, a rough idea may be formed of what number of slopes and their elevation, as well as the number and widths of the terraces or landings, the ground may be conveniently formed into. The hard-and-fast lines of the architect in all cases that I have witnessed means a larger outlay than the prudent gardener would recommend; as when material has to be brought, or it may be taken away, in order that a precise width of terrace or height of panel to an inch may be complied with; whereas a little discretionary power given to the

Fig. 118.—BORN OF JERICHU

by our efforts each may be made joyous. Without kindred nourishment the plant sleeps, but kindness bestowed it returns cheerily. So with the year; and as the assistance received by the plant makes it forget past neglect, let us in the new year forget and forgive any neglects which we may have experienced. Obstacles and impediments have beset the paths of all. Employers and employed have alike been tempted to utter hard words and, mayhap, commit harder acts. Let these be as if they had never been, and, like the newly nurtured plant, the new year will flourish.—W.

#### GROUNDWORK—SLOPES AND TERRACES.

ALLUSION has been made to inclinations on lawns and terraces appearing to the eye as being level—a subject well worth the notice of those contemplating groundworks of that kind. The usual accompaniment of a terrace—viz., "the slope," is sometimes dispensed with when a wall is adopted, but it is common where there is a number of descents made to have the top one only as a wall with balustrade or parapet, and the others constituting a series of slopes, which may either be of turf or shrubs as desired. As such works usually come under the management of the resident gardener, a few hints may be of service. Let us take a common case as an example. A residence occupies a rather elevated position, and the ground descends from the base of the building in the direction in which it is proposed to form dressed grounds. In such a case it is not unusual to cut the slope into a series of terraces, and at the bottom to form a panel, which to the eye appears to be

operator will usually save a large outlay, and the appearance be really the same.

Taking into consideration the ultimate effect that is looked for in a place carried out in slopes and levels, especially when viewed from the top, we may say that where the builder's work does not dictate the forms the gardener has to work to, a certain amount of conformity to the existing grounds may be made with great advantage; and even mechanical works, as steps and landings, ought to be made to act in like manner. The advisability of this is not for mere appearance only, but for the more imperative object of utility. Many years ago we remodelled some slopes that form the garden front of the mansion here (Linton Park), and added a flight of steps, of about 15 feet wide and forty-seven in number, in a series of flights and landings, and each step inclined outwards about one-eighth of an inch, while the landings had likewise an inclination of about 1 in 30 or thereabouts, the groundwork partaking of the same character, while the slopes which corresponded with the easy and comfortable flight of steps were formed on the gradient of about  $2\frac{1}{2}$  base to 1 in perpendicular; or about  $20^\circ$ —a slope for grass quite steep enough in a district like this where the summer drought tells so seriously on grass slopes. A moister soil and north aspect may allow a steeper incline perhaps, but we would not advise a less incline than what mechanics call 2 to 1 in ordinary cases, as it is not easy to walk up a steeper one. Many other reasons might be put forth for not having a steeper incline than that, not the least being the frequency the turf gets broken and destroyed when it is too steep; and unless some important

reason renders it necessary to be so, it had better have the easy and agreeable form which the gradient above gives it than it would have if it were more upright. I may here add that embankments for roads or other purposes ought to be even more than that. A base of 3 to 1 perpendicular is not unusual where the material is of a very loose kind, but a cutting may be steeper; and our railways afford examples of all gradients from 60° or more down to 15°, and some of the embankments also present a diversity of angles, all, doubtless, guided by the character of the material of which it is composed and of other matters bearing on the case.

We now come to what are called levels, but which in reality had better be inclines also; not, of course, to appear to be so, but by appearing to conform to the surrounding objects they look level. A panel we have here at the base of the flight of steps alluded to has a length and width of about 160 feet, and there being a farther fall in the ground beyond the distance alluded to a decline in that distance was necessary. Partly to give the effect alluded to, as well as to obviate the necessity of a needless amount of wheelbarrow-work, the descent of the 160 feet was quite 6 feet, and less would certainly not have looked so well. As viewed from the top it appears level, which it would not have done if really so, as in that case it would have looked as if it leaned inwards. This deception of the eye ought to be studied by those having such works in view; and a very good example may be met with in winter when a pond by the side of some hill is frozen over, and perhaps covered with snow. Perfectly level as we all know such an object must be, its appearance when looked at from above is anything but pleasing, and certainly the reverse of level, looking as if it pitched in towards the hill. It is to obviate this that I recommend the incline above spoken of, or some near approach to it.

I may here add that the incline recommended for the steps and landing enables the water to run off, which it would not do if each portion were level and the rain backed perhaps by a wind blowing in the direction to keep it there. This matter is well worth consideration, and each step ought to "weather," as masons have it, not less than the eighth of an inch, and the landings accordingly.

I may, in conclusion, say that I believe a croquet lawn may be allowed the same descent as that alluded to above without any serious detriment to the game. Perhaps, however, I may be in error here, but having had something to do with more than one which presented an inclination of something like 1 in 30, and not having heard anything against its working well, I take it for granted that its unevenness was not perceptible to the players. But on this subject I confess speaking without any authority, and must leave this to be dealt with by those better acquainted in such matters.

I have not said anything on the propriety of keeping the best soil to the top, as I conclude this will be sufficiently well understood if the works be in the hands of gardeners. On another occasion I may, nevertheless, add a little more on this head, on which not a little of the ultimate effect depends if the ground operated upon has to form a series of flower beds or to be otherwise planted.—J. ROSSON.

### NEW ZEALAND GARDENING.

THE accompanying letter addressed to the Secretary and officers of the Maidstone Gardeners' Mutual Instruction Society, from one of its former members, will no doubt be interesting to some of your readers, as it relates to matters both general and horticultural. The writer, a steady, industrious, hard-working man with a young family, had previously to leaving England been acting as general outdoor servant to a clergyman near here, whose garden he had taken much pride in. Wishing to improve his position he emigrated to New Zealand, with what result I leave his own letter to tell. I may, however, add that he was a frequent attendee of the meetings; and although too modest to take much share in the discussion he was much respected by the members, and his letter proves that he has not forgotten his old friends. His letter being read to the meeting was duly appreciated, and a reply will be made in due time.—J. ROSSON.

"Gentlemen,—I am happy to inform you that I arrived here on February 12th, 1875, and am sorry to say I lost a little girl on the voyage, which is the only trouble noticeable I have had since I left home. I was ten days before I could obtain a start, and then I started jobbing gardener, and have not wanted a day's work since. I earn 9s. and 10s. a-day, according to the

work and party I work for. I am just finishing laying out the cemetery. It has been a good job. I have planted upwards of a thousand trees—coniferous and forest trees and shrubs, besides other work. The subsoil is very hard and has to be removed, filling up with other soil, or the trees cannot grow on these high and dry hills.

"Gardening here is very different to that at home (England). Very little bedding-out is done here, the gardeners' object being to raise as good a collection of Conifers and forest trees and shrubs as possible; and the one that can save most is the man they look to, as a great many trees are planted only to die. We have a good collection of Pinuses, Cupressuses, Araucarias, and shrubs. Pines are planted by the million, especially *P. insignis*, *P. Pinaster* (maritima), and *P. austriaca*. *P. insignis* is the fastest grower, and the *Pinaster* grows better than any other on dry hills; but *P. monticola*, *P. densiflora*, *sylvestris*, *Torreana*, *tuberculata*, and many others soon make fine trees if planted well. *Cupressus macrocarpa*, *C. horizontalis*, *C. Goveniana*, *C. Lambertiana*, and *C. Lawsoniana* are very plentiful.

"The great object is to provide a good shelter to a gentleman's place as quickly as possible, and for that purpose the Blue Gum (*Eucalyptus globulus*) has been employed, as that is the quickest-growing tree we have. Seed sown will make a good shelter in about three years, but they have stopped using it now so much, as it robs everything that is near it.

"Geraniums grow on year after year as large as Black Currant trees, and we have them covering an 8-feet wall and hanging over the top like Ivy, and covered with flowers nine months out of the year. Our spring is just commencing now (Sept. 26th). We are just pushing on the last tree-planting; fruit trees are past removing now. We have a pretty plant that was raised in the colonies, *Photinia serrulata variegata*: the leaf is tricolor. We keep obtaining the new Roses; some of them do remarkably well on their own roots, especially Cloth of Gold.

"And now I will tell you a little about Comorn. It is a new town close by the sea, and is in a very prosperous condition at present, but things are very dear. We have to give 7s. 6d. for a spade and 5s. 6d. for a three-shilling Saynor's pruning knife; 2s. 6d. for a pair of gloves worth about 1s. at home. Any gardener coming out should bring plenty of tools. Furniture and all kinds of hardware are dear; coals, £3 10s. per ton; butter, 2s. 6d. per lb.; bacon, 1s. 8d.; bread, 1s. 4d.; flour, a 50-lb. bag for 6s. 6d., and a two-roomed house is rented at 10s. per week. I mention these few things because they do not do it at home; it is only the cheap things that they put in the newspapers. But Comorn is about the dearest town in the colonies, as the goods are brought by water and have to be landed in surf boats; but we had a railway started yesterday, and another going on.—JOSEPH BAKER."

### RIVERS' PEACHES IN TEXAS.

HEN at the Rosedale Nurseries we find all the following kinds of Rivers' Peaches to be very heavy croppers, and feel confident that with timely care and thinning they could be brought to great perfection. With the exception of Early Beatrice they are too soft for shipping. These notes, however, merely apply to what they have done with ourselves in Central Texas, and cannot be taken as a criterion of what they may do elsewhere, fruits being so variable even in neighbouring communities, let alone States. I know Rivers senior and junior, and Sawbridgeworth too, and a better recommendation to a new fruit than "raised by Rivers" I would not wish for; but at the same time, what may be very excellent in the north or in Europe may be ill fitted for Texas, and *vice versa*. As a rule, however, nearly all kinds of Peaches do well here; indeed, Texas is one of the best Peach-growing States in the Union.

Early Beatrice is a very beautiful little fruit, suffused all over with red, and when fully ripe the flesh is very melting and juicy. It is an enormous bearer; indeed it crops much too heavily for the good of the tree or the quality of the fruit, but I believe if early thinning were resorted to (and that we have no time here to do, where so much other work demands our presence) it would be greatly improved in size and quality. The fruit has the rare quality of hanging on the trees for ten days after it is fully coloured and marketable, but that is no advantage, as it then treads on Hale's, with us the largest and most saleable Peach of the two. The fruits are firm-fleshed and stand carriage well, and we have never known them to rot on the trees or be attacked with worms. In 1873 it ripened here on May 15th, in 1874 on May 18th, and this year, 1875, on May 25th.

Early Louise is medium-sized, yellowish, with a red cheek; it is melting, very juicy, and as sweet as honey. It does not crop nearly so heavily as Early Beatrice, and is too soft for shipping, but as a family Peach it is delicious. It ripens during the last week in May.

Early Rivers is one of the most beautiful of early Peaches, large, and of a pale straw colour with a warm rosy cheek—just such a fruit as Eve could not resist. Its flesh is melting, juicy, and delicious, and in size and quality it has few if any seasonable superiors as a family Peach, but it is too soft to ship. It ripens at the same time as Early Louise—end of May.

Early Victoria before it ripens is one of the dirtiest-looking little Peaches I know of, but from ten days before up till the time of its maturity it undergoes quite a change, and gets moderately pretty—a rusty white with red cheek. Its quality is honey. Its size is medium, time of ripening early June, and although a fine family fruit it is too soft for shipping.

Stanwick Early York is a pretty little Peach, white, a good deal covered with red. It is a very heavy cropper, but much too small to compete with such sorts as Large Early York, Mountain Rose, and other fine kinds of the same season. It is not nearly so big as Troth's, nor yet so fine-eating as the true Early York, and it is the most wormy little Peach I know of. It drops badly in dry weather.

Rivers' Early York is not much unlike Stanwick Early York in size, colour, or quality, but it is not nearly so bad with worms, and if anything it is a trifle earlier, this sort being quite gone whilst a good third of the preceding still hang on the trees. Both ripen about the third week in June.

Prince of Wales is a beautiful creamy-coloured fruit highly coloured with red, from medium to large in size, of excellent quality, and ripens about the end of July and 1st of August. It is a great cropper, and with a little care in thinning it would be a first-class family Peach. Owing to last summer's extreme drought more than half the crop fell; but it was not alone in that, as many standard kinds, as Wilson's Early, Druid Hill, Stump the World, and Ward's Late were equally faulty.—W. FALCONER, Brenham, Texas.—(*American Gardener's Monthly*.)

### NEW BOOKS.

*Elementary Lessons on Botanical Geography.* By J. G. BAKER, F.L.S. London: Lovell Reeve & Co.

BOTANICAL GEOGRAPHY is a subject which is rarely presented to gardeners in a popular form. The treatises which have hitherto been written on the subject are expensive and elaborate, or have been incorporated with botanical works which are at once philosophical and expensive. In the little volume which has recently been published by Mr. J. G. Baker we have the subject presented to us in clear and simple language, which makes it easily intelligible to those who would be bewildered if it were treated in conjunction with physics and biology. We give as our illustration an extract from the chapter "On the Manner in which Heat Influences the Distribution of Plants:"—

"The influence of temperature upon the distribution of any plant depends largely upon its season of vegetative activity. Annuals, which run their course from the seed stage to leafing and flowering, and back to the seed stage, in a period varying in length from two to six months, can only be affected by the temperature of that portion of the year during which they are growing. Biennials have to last through the winter, and often concentrate their energies for a large proportion of their existence in storing up materials in their rootstocks, and spring up into flower and seed in a short time when warm weather comes, at the expense of tissue previously elaborated. Trees and shrubs have usually a well-marked time of flowering and fruiting once a year, and it is the same with a great many perennial and annual herbs, but the season with different species is very different. *Eranthis hyemalis*, and the Snowdrop and spring Crocuses, push out their flowers and leaves as soon as the snow melts. Hawthorn and Blackthorn, and our common fruit trees, push out their flowers in April and May, before the leaves are developed or perfected. The flowering of Ragwort and St. John's Wort takes place long after the leaves appear, and marks that the summer equinox is past, and the days are beginning to shorten. *Colchicum autumnale* produces its flowers regularly in August, but its leaves not until the following spring; while *Asters* and *Chrysanthemums* flower regularly at Michaelmas; and Holly and Ivy, and Aucuba, and Cherry-Laurel, are in full leaf all winter; and *Lamium album*, *Poa annua* and *Capsella bursa-pastoris*, may be seen during any month of the twelve in simultaneous leaf and flower. So that the time of the year at which different plants are at all sensitive, and especially sensitive to temperature, varies extremely.

"It is evident that, in the first place, plants need very different degrees of temperature to start them into life. The seeds of many of the Microtherms, and even of plants of our middle latitudes, will germinate at a temperature of little over 32°. Of cool-temperate species, for which the experiment has been carefully tried, *Sinapis alba* has been found to germinate at 32°;

*Lepidium sativum* and *Linum usitatissimum* at 35° to 36°; *Nigella sativa*, *Iberis amara*, *Trifolium repens*, and *Collomia coccinea* at 41° to 42°; and Wheat, Barleys, and Oats at 44° to 45°. With heat added over and above these degrees the time from the sowing of the seed to its germination is found to be materially shortened. *Sinapis alba*, which took seventeen days to germinate at 32°, was found by M. Alphonse De Candolle to take sixteen days at 35° to 36°, nine days at 37° to 38°, four days at 42°, three and a half days at 48°, one and three-quarter days at 51° to 52°. Passing to Mesotherm types, the temperature needed for germination becomes gradually higher. For Maize it is stated to be 48°, and for the Macrotherms at least 50° to 60°, but it may take place at a much higher temperature. *Sesamum orientale* has been found to germinate in nine days at 51° to 52°, in three days at 62° to 68°, in thirty to thirty-six hours at 68° to 69°, in twenty-one to twenty-two hours at 75° to 76°, in twenty-five hours at 82°, and some even in ten and a half hours at a heat of 104° to 105°.

"The start once made, it is evident that plants need a certain amount of heat to enable them to flower and fruit, but that, with some species at any rate, it is immaterial, within surprisingly wide limits, whether the heat come gradually or rapidly; and that if the latter, the times of flowering and seeding are accelerated. Nothing shows us better how flexible in this respect a plant may be than the familiar facts about the sowing and harvesting of the common cereal grains. In the north of India, Wheat is a common winter crop, to be followed in summer by Maize or Indigo, and is sown, and the harvest gathered, within three months. In Palestine the Barley ripens at the end of March, and the Wheat by the end of April, November being the month of ploughing and sowing. In Malta and Sicily they sow at the end of November, and harvest through May. In the countries round the north side of the Mediterranean basin they sow early in November, and harvest in June. In Central Europe they sow in October, and harvest in July. On the Yorkshire wolds and in the Alpine valleys of Switzerland they have to sow in September, and cannot harvest till the following August; so that the time that elapses between sowing and ripening may be said to vary between the different parts of the tract in which the common cereal grains are cultivated for the use of man, on a grand scale, from 90 to 320 days. If too much heat be applied the embryo refuses to germinate; or if it has germinated already, the leaves, or flowers, or fruit, according to the stage which the plant has reached when the hurtful heat is applied to it, are not developed.

"Then, again, it is equally evident that a gradual or sudden access of cold below a certain point—a point which varies with different species—coming when the plant is in a state of vegetative activity, injures or kills it. It may be simply a cold north-east wind in spring, blighting the blossoms of the Apricots, and Apples, and Pears, and whilst destroying the seed for the year, doing no permanent harm to the tree; or it may be a mild frost at the beginning of winter, cutting off entirely our garden Dahlias, Pelargoniums, and Mesembryanthemums; or a hard frost in the middle of winter, killing the Eucalypti, Araucarias, Hollies, and Aucubas.

"It follows from these familiar facts that some plants are checked from spreading from warmer latitudes towards the poles by the want of plenty of heat in summer to carry them from the seed stage, round the circle of life, to the seed stage again; and that others, for which the heat of summer is sufficient, are cut off by sudden fits of cold that catch them at a time of vegetative activity. It is of no use, it seems to me, attempting to treat this last matter in close detail as a question of figures and thermometric degrees, because the different habits of growth of plants, and the different degrees of the wateriness of their sap, dependant upon the hygrometric conditions of the surrounding atmosphere and soil, influence it greatly, and their vegetative action passes through so many intermediate stages between the fulness of life in spring and their nearest approach to a dormant condition. But we may safely distinguish broadly between the two great classes of plants which I have indicated, and which I will call the *Heat-lovers* (*Philotherms*) and *Cold-fearers* (*Frigofuges*). Annuals are usually heat-lovers; trees and bushes, especially evergreens, are usually cold-fearers; and it follows, from what has been explained already about the characters of the two kinds of climate, that the cold-fearers can work up further from the equator in insular, and the heat-lovers in continental, climates."

This is a work which we can commend to the study of all gardeners, whether amateur or professional, as being a clear exposition of laws which materially affect the cultivation of plants.

*Handy Book of Ornamental Conifers and of Rhododendrons and other American Flowering Shrubs.* By HUGH FRASER. London: Blackwood & Sons.

THE work before us is a useful one to lovers of Conifers and of what are called "American plants"—two families of

the vegetable kingdom which contribute perhaps more of ornament to our shrubberies and gardens than any other. Mr. Fraser's great experience as a nurseryman in one of the largest, if not the largest, nurseries of Scotland, enables him to write and speak with authority on such a subject, and in this handy book he certainly communicates without any reserve an amount of information which is useful and instructive. As a manual to planters it will be of great service, and as a book of reference to gardeners and nurserymen it ought to find a place in every establishment. All the information respecting the subjects upon which the book professes to treat is exhaustive. We could only wish that Mr. Fraser had given us the characteristic distinction of the different species of the Conifers, which would have made the work complete. We know of no handy book which gives us this information—to distinguish, for instance, the essential characters of the different species of *Cupressus*, which are in some cases very puzzling. A few synonyms would also be a great help if added to the different specific names. But even without these Mr. Fraser has given us a very useful book.

### PLANT PROTECTOR.

As usual at this time of the year we have numerous applications for advice how to protect plants—applications which

prizes at these exhibitions is £2500, the prize money on all occasions to be paid on the first day of the Show. To further add to the attractions Mr. W. W. Robertson, the Manager, has purchased the Cruikshank Art Collection, which will be arranged under the personal superintendence of Mr. George Cruikshank, and will be exhibited in the Art Galleries of the Society at the close of the first annual Fine Art Exhibition. Over two thousand paintings have already been sent in, and the Exhibition promises to be one of unusual excellence and interest.

—We recently noticed the increasing employment of SEA-WEED as a manure, and one nurseryman told us that "it made the things healthy;" and he wrapped seaweed round the broken part of an Apple-tree branch before he tied splints on each side of the fracture. It has been found similarly useful to mankind. Pliny tells of a man who fell from a tree and broke many of his bones. He was merely kept enveloped in seaweed, and eventually recovered. The people of Provence apply seaweed to contusions. Following these hints the great reviver of sea-bathing in Europe, Russell, satisfied himself that "Nature herself supplies us with the best medicine for dissolving tumours in the *Quercus marina* or Sea Wreck at one season of the year, for in July this plant bears certain vesicles or pods that contain a slippery and soapy juice. These vesicles are to be squeezed in the hands and the tumour rubbed with them till it imbibes this soapy liquor; and, lastly,

Fig. 119.

should have been made before the winter arrived. To those who are willing to obtain a protector ready made we recommend attention to the following. It is manufactured by Messrs. Messenger & Co., and they thus speak of it:—

"The lights can be opened to any extent for ventilation, or they can be run completely under the light on the opposite side, and that it is held open perfectly secure by iron pins, leaving the gardener's hands free for working, as shown on the illustration. It is made either with the sides of three-quarter-inch slate or 1-inch wood, or it is set on brickwork. It is adapted for protecting plants, or for forcing as a ground vinery, or for growing early vegetables and salads. Any length can be added at future times."

A gardener who has used protectors of this nature speaks of them as being invaluable aids in any garden large or small. He has used them for bedding plants, French Beans, Violets, &c., and as shelters for many tender crops in winter and spring. In the summer and autumn they gave an abundant supply of Cucumbers, and for growing collections of plants, as *Palargoniums*, *Primulas*, *Cinerarias*, *Poinsettias*, &c., he found them of the greatest value.

### NOTES AND GLEANINGS.

We are glad to be able to announce that a farther sum of £100 consols has been purchased in the names of the trustees for the Gardeners' Royal Benevolent Institution, and that the amount now standing in their names is £10,700.

—As advertised in our columns, the Royal Aquarium Summer and Winter Gardens Society propose holding a series of GRAND FLOWER AND FRUIT SHOWS on the following dates:—April 12th and 13th, Forced Rhododendrons, Azaleas, &c.; May 10th and 11th, Roses in pots, Azaleas, Palms, and Table Decorative Plants; May 30th and 31st, Grand Exhibition of Plants and Fruit; July 5th and 6th, Great Rose Show and Dinner-table Decorations; and October 4th and 5th, Great Fruit and Chrysanthemum Show. The amount offered in

it must be washed with sea water, and dried perfectly clean. This disperses all hardinesses." This is a curious anticipation of the more recent employment of iodine. Acting on this principle, Foubert has found poultices and such applications of *Fucus vesiculosus* useful in scrofulous sores; and baths have of late years been prepared containing more or less of the mucus or slime of seaweed, and are to be had at both French and English bathing establishments; for instance, at Margate and at Ramsgate, where they are known under the name of ozone baths.

—We commend to our readers "THE AGRICULTURAL HOLDINGS ACT, with Notes and Necessary Forms for the use of Landlords and Tenants. By H. Winch, Barrister-at-law." It is only a shilling pamphlet, and might save many pounds to those who are proprietors or occupiers of land. We will make one extract.

#### "CLAUSES OF THE ACT.

"Consent of Landlord for first class.—10. The tenant shall not be entitled to compensation in respect of an improvement of the first class, unless he has executed it with the previous consent in writing of the landlord.

"Tenant's title to compensation.—5. Where after the commencement of this Act, a tenant executes on his holding an improvement comprised in the following:—

#### "FIRST CLASS.

Drainage of land,  
Erection or enlargement of buildings,  
Laying down of permanent pasture,  
Making and planting of Osier beds,  
Making of water meadows or works of irrigation,  
Making of gardens,  
Making or improving of roads or bridges,

Making or improving of watercourses, ponds, wells, or reservoirs, or of works for supply of water for agricultural or domestic purposes,  
Making of fences,  
Planting of Hops,  
Planting of orchards,  
Reclaiming of waste land,  
Warping of land,

he shall be entitled, subject to the provisions of this Act, to obtain on the determination of the tenancy compensation in respect of the improvement."

### OLD TREES.

WHAT various thoughts are called forth in contemplating old trees! What storms they have outlived, what events they

have witnessed, what shelter they have afforded, what benefits they have conferred! Some are rich in historical associations, others do duty as territorial landmarks; some are memorials of stirring events, others are monuments of some famed ancestor. Let us, then, cherish them as old friends, and render to them that honour which is their due.

Old trees have been honoured in all ages, but the gnarled Oaks, the scraggy Thorns, and the ancestral fruit trees are now more cherished than they were. They are banded and propped, supported and sustained. The good they have done is appreciated, and their usefulness even now in suggesting wholesome thoughts and healthy contemplations is recognised.

It is pleasant to see these old trees—old friends—regarded, as old friends should be, with respect. There is something in an old friend that one clings to with a confidence which we feel will not be misplaced. We like to nurture the young, and we admire the vigour of perfected manhood, or treehood; but in both tree and man we learn to lean on the stability of those which have proved their stableness. I am not yet old, but old enough to have experienced the flatterings of new friends who have failed me, and new trees from which I had hoped for more than I have obtained. I have destroyed the old for the sake of the new and have regretted it. I have changed and "changed back again," and found old friends which had "changed not;" but the old trees I have destroyed I can never restore.

But I have new friends also and new trees, generous and genuine friends, who would rather sacrifice my friendship than deprive me of that which I had enjoyed prior to theirs. That is noble friendship, and I prize it as I do my new trees which flourish by the side of their foster parents. I have other "friends," who have forced their friendship on me and sought to alienate me from the old, and thus have shown the cloven foot of selfishness, and have won—my pity; as I have other trees which have been fair to look upon, which have been full of promise—trees which have put forth a great show of bloom and vigour, but on testing their fruit—proving them—I have found them "not true to name." Thus by experience and disappointment I have been taught a lesson which others may with advantage learn also, and that is not to presumptuously abandon old friends or lightly sacrifice old trees.

I am not a kid-gloved sentimentalist, but am one of "the craft," plain and practical—one who can work hard and speak plain; of which I may give as an instance that I have wheeled muck until my hands became as hard as the barrow handles, pruned until my fingers were frozen into chilblains, and uprooted trees until my shirt was wet on my back.

Having presented my credentials I will now be practical and state my reasons for saying a word on behalf of old trees: my other old friends can take care of themselves. When I was a very young gardener I made a mistake. Many young gardeners do; they think they are making improvements, but in reality they ought to be written "mistakes." They have either planted the wrong sorts of trees or planted them in the wrong places, or, what is quite as likely, have (or would if power had been given) taken away trees which ought not to have been removed.

It should never be forgotten that in the removal of trees it is possible to undo the work of a hundred years in as many minutes. Much consideration should therefore be given before the work of uprooting commences. The destruction should not be decided in a day—hardly in a season, and that season winter; but the trees and their surroundings should especially be examined in the summer months, and the verdict condemning them be given when the trees are in their fullest beauty. By that practice errors in removal are greatly reduced.

It is dangerous to decide quickly on destroying trees at a season when the trees are divested of their beauty. The casting of their foliage, and the consequent untidiness following, must have no weight and voice in the decision; yet it is to be feared that it is often the most powerful argument—the casting vote—in the question of their removal.

It is more than twenty years since I was first installed (perhaps prematurely) in the position of head gardener. I had wearily longed for that time—the prospective "grassy Lumon"—of impatient journeymen, who seldom find it, however, to be the bed of Roses of their anticipations. I was full of energy, and possessed, at least in my own estimation, taste and competency. I must make a mark, and was ever ringing the changes on "alterations and improvements." It was autumn, and the seasonable *deshabille* of falling leaves interfered with my sense of trimness and propriety. I envied those

who had as garden ornaments none but evergreens, and I urged the removal of the old deciduous trees. My employer urged the mistake, but the lady voted with me, and of course we conquered. The trees were removed—what a blank! But it would never do to own that it was not the exact effect foreseen and desired.

The evergreens were planted, and everything done to ensure their success. They did succeed, and are fine now.

After ten years of the best labour I could give, and a farther absence of a like term, I visited the "old place." My "old master" gave me an unusual welcome by compelling me to dine at his family table in words that I am not likely to forget in consequence of their pleasantness and also their bitter sting. "You served me well," said he, "and successfully, and I treat you as I treat all good servants. The shrubs which you planted are all that I can desire of them, but I would give you a thousand pounds to bring me back my old trees."

It is quite clear now that my youthful improvement was in reality a mistake. I have reason therefore by that as well as other instances which I can adduce to say, Do not lightly sacrifice old trees or lightly value old friends.

I have also made mistakes when essaying improvements in dealing with old fruit trees, and seen similar mistakes made by others. These I will quote on a future occasion as a warning to those of advanced proclivities—a check to high-pressure energies.

I never now hastily destroy a tree. My first thought is renovation, my last destruction. There is a wonderful store of energy in an old tree as there is a fund of information and refreshing pleasantry in an old friend. Let us use them, and they will yet yield us profit.

But are we never to destroy? Yes, but destroy only to replace.—RADICAL CONSERVATIVE.

## THE OLD MARKET GARDENS AND NURSERIES OF LONDON.—No. 7.

It may be as well to remind the reader of the peculiar position which some of the market gardens of London occupied (I do not mean topographically, but with regard to the vending of the vegetables and fruit they produced) say a century and a half or two centuries ago. Greengrocers as we know them now did not then exist, London citizens procured their vegetables in one or two markets, or else from chance dealers in the streets, the early costermongers. Sometimes they chose to obtain garden produce for themselves direct from the grounds, and also to eat it on the spot; so that sundry of the market gardens were also at first pleasure gardens, until by degrees most of the land given to the culture of vegetables was devoted to recreative purposes, and the market gardens removed farther a-field, where there was more space at command and an atmosphere less defiled with smoke. That part of Surrey skirting the Thames which we call the district of Lambeth proper is not at present a particularly attractive spot; there is this connection, however, between the past and the present, that the place is still humid, and having a soil of pale clay it is likely to remain so. Etymologists, indeed, hint that the name itself is expressive of dirt or mire, coming from *lam*, and *hyd* or *hythe*, equivalent, therefore, to the "Dirt Haven," though Dr. Ducarel, the friend of Tradescant the gardener of Stuart times and a resident in Lambeth, will not have it, and insists that the *lam* should be *lamb*. But no good explanation of that name can be given, for it does not appear to have been pasture ground.

If we look back to Lambeth in the days when the early botanists found such plants as *Anchusa sempervirens* and *Epilobium roseum* growing there we see it intersected by many little paths, which are shaded with Willows, and along which stroll parties of Londoners on summer evenings; while on several patches of ground, which are slightly elevated (since much of Lambeth is so marshy that it is overflowed by a tide rather higher than usual), vegetables are cultivated for the market. The cost of carriage is not an important item, the produce being boated across the Thames, and usually landed at what was called "Strand Bridge," properly a pier, above which there was swung a bridge crossing the lane leading from the landing-place into the Strand. The "*Sparagus Garden*" at Lambeth forms a subject of comment in an old play, thus letting us know incidentally that this plant was cultivated there with success, and it would seem the Londoners were particularly fond of this vegetable.

Vine Street, Lambeth, is not only of interest to the antiquarian as denoting the locality of a very ancient roadway, it is also notable because it is said by an old tradition of the neighbourhood to have had vineyards along it a few centuries back. A writer on the history of Surrey, when mentioning this circumstance, takes occasion to say that our forefathers cultivated Vines more for shade and ornament than use, because it was not likely they had Grapes when the climate was more moist and variable than at present. I venture to differ from him. Possibly unlike the fox in the familiar fable, people in the olden time had no objection to sour Grapes, but I do not think they would have grown Vines without obtaining a return of fruit; and we read in various authors about the manufacture of wine from English Grapes. Nor is the statement about the English climate quite correct. Could it ever have been more variable? I fancy not, and there is evidence tending to show that the summers were longer and hotter.

Passing by the Apollo Gardens, Lambeth, and the Mount Gardens, both of dubious history, I should next notice Cuper's Gardens; because, though afterwards the spot became a notorious place of public entertainment, in the first instance there really was a garden in the charge of one Boydell Cuper, who was a dependant of Thomas Howard, Earl of Arundel, whose fame is prolonged by the Arundelian marbles. These gardens were nearly opposite Somerset House, and as Aubrey speaks of the fine walks there were in his time, it is supposable that the earl planted the ground with some care and taste, though it is not probable he put in many exotics. Subsequently the estate came into the hands of one of the Oxford colleges, but the gardener of the late earl, by some means or other, became tenant, and removed here sundry fragments of Greek and Roman marbles he had obtained, turning it into a popular resort, which, by accident or joke, was often called Cupid's Gardens, and finally closed in 1753.

Before leaving this part of Lambeth it should be remembered that some of the Archbishops of Canterbury took much pleasure in plant or tree culture, and visitors from other countries occasionally sought permission to view the nursery and kitchen gardens attached to the palace. Two venerable Fig trees, presumed to have been planted by Cardinal Pole, were objects of special remark until they succumbed with old age. Scions, however, taken from them were flourishing not many years ago, and are probably living still. Archbishop Cornwallis seems to have been one of those rather partial to gardening in the eighteenth century. Oldys, in his casual observations on fruit trees, does not forget to expatiate on the splendid Mulberry trees he saw in July, 1753, in the gardens of Carlisle House, Lambeth Marsh. He computes the shade of one of these as covering 40 yards. It was named after Queen Elizabeth.

The monument erected at St. Mary's, Lambeth, to the memory of the Tradescants has been seen by a great many persons doubtless, yet by few horticulturists I imagine, though men who, as one biographer puts it, "introduced botany to this country," are surely worthy of much honour. The Tradescants, or as their neighbours called them, the "Tradescins," by a slight distortion, were of Flemish descent, and arrived in England at some period in the reign of Queen Elizabeth. There must have been something very remarkable about them, for we read that "they travelled art and nature through"—a surprising journey! Quaint also are these allegorical but ungrammatical lines:—

"These famous antiquarians that had been  
Both gardeners to the Rose and Lily Queen,  
Transplanted now themselves, sleep here, and when  
Angels shall with their trumpets waken men,  
And fire shall purge the world, these hence shall rise  
And change this garden to a paradise."

Is an allusion here made to the churchyard or to the actual garden of the Tradescants? That was in South Lambeth; on the assertion of Peter Cunningham we have it that the Nine Elms Brewery occupies the site, a woeful descent from the beauties of Flora. A house, subsequently called Turrit House, was occupied by Tradescant the younger, if not by his father before him; it was situate in the South Lambeth Road. The physic or nursery garden could not have been of any considerable extent, though Tradescant the younger deemed it worthy of having a printed catalogue of the plants it contained, which was published in 1656. How John Tradescant, sen., acquired this property is uncertain. That he must have been well connected is clear from his having the title of gardener (honorary?) to Charles I. One of the most remarkable achievements

attributed to him was his obtaining the Apricot from Algiers at the risk of his life and property as well, though we have not the exact details. In his travels he obtained a variety of slips and seeds, and deposited them in his South Lambeth garden, and his son followed his example, visiting America, which does not appear to have been honoured by the presence of the elder Tradescant, despite the assertion about the wide range of his travels. At some date in 1749 the Royal Society paid a formal visit of inspection to this plot of ground, but could not discover more than a dozen or so of trees that they thought themselves justified in attributing to one or other of the Tradescants. And that there should not be lacking the sombre side in the history of this garden, it is stated that when John Tradescant, jun., died in the reign of Charles II., he left to Elias Ashmole the antiquary his miscellaneous gathering of curiosities, and about these there arose a litigation. This with other unfortunate circumstances so affected his widow that she drowned herself in a pond on her premises in 1677; and as the epitaph at Lambeth records the previous death of her son, I presume this branch of the Tradescants thus became extinct.

In No. 454 of the "Spectator" this curious passage occurs:—"I landed with ten sail of Apricot boats at Strand Bridge, after having put in at Nine Elms, and taken in Melons consigned to Mr. Cuffe of that place to Sarah Sewell and Company at their stall in Covent Garden." This points to a largish production of Apricots in the early part of last century, if the incident is not imaginary. As for Mr. Cuffe, we might never have heard of him had he not been embalmed in the pages of the great British essayist. Where he grew Melons at Nine Elms is quite as uncertain as is the identification of the planter of the nine Elms that gave name to the district. Doubtless Melons would succeed well in a locality then quite as watery as Lambeth, and not much better now. Old Vauxhall was not, I believe, ever a market garden, though an antique print shows beside it several strips of land with growing Cabbages and other vegetables. There were small market gardeners herabouts when Vauxhall was in the height of its popularity in the days of Tyas, who with all his energy and perseverance had a melancholy way of looking at things, and was decidedly unfortunate in his weather on *fête* days. As the tale goes, when some special affair was coming off, one of his horticultural neighbours came up to him with a face expressing anxiety, wishing to know if the night was positively fixed. Tyas told him, but as he walked off called him back to inquire why he was so earnest about it. "Why?" said the gardener, "Because I mean to choose that day to sow seeds, for it will be sure to rain in the evening."—C.

## HARDWICK HALL.

THE SEAT OF THE MARQUIS OF HARTINGTON, M.P.

At the distance of two miles from the main road leading from Chesterfield to Mansfield stands the celebrated mansion of Hardwick Hall, the seat of the Marquis of Hartington. It is situated on a gentle eminence 594 feet above the level of the sea, in the midst of a finely wooded and undulating park of 744 acres, in which are many venerable Oaks, probably indicating that it once formed a part of the forest of Sherwood. The mansion was built in the reign of Queen Elizabeth by the Countess of Shrewsbury, the third daughter, and after her husband's death the co-heiress, of John Hardwick, Esq., who brought this estate to her second husband Sir William Cavendish, from whom it has descended to the present noble owner.

The Hall, which is in every essential part just as the Countess left it, was commenced about the year 1576. It is of striking proportions, the length being 210 feet, the width 100 feet, and the height 98 feet. The windows are so large and numerous as to have given rise to the saying in the neighbourhood—

"Hardwick Hall,  
More glass than wall."

And the six towers with which it is crowned are surmounted by open parapets of stone, in which occur the oft-repeated initials "E. S."

The flower garden before the west front, immediately opposite the mansion, is surrounded by a wall with quaint ornaments of stone, and is entered from the park by large doors between two picturesque lodges; and horticulture, like architecture, is made to do homage to the memory of E. S., these initials



being preserved in carefully cultivated verdure and flowers. A long pavement leads to the great hall, wherein everything is in keeping with the external appearance of the house. It is hung with tapestry; and the dark oak wainscot throws out into relief a fine statue in Maltese stone of Mary Queen of Scots, on the base of which is inscribed—

"Mary Queen of Scots, born 1542.  
Driven into exile by her own subjects, 1563.  
Put to death by her hostess, 1567."

A pair of elk's horns, found in a bog in Ireland, and branching out to a width of 9 feet, adorn the walls. Ascending a wide stone staircase you enter the chapel, where the chairs and cushions are covered with ancient needlework, and the walls with painted tapestry depicting subjects of Scripture history—viz., the conversion of St. Paul, the punishment of Elymas

the Sorerer, St. Paul pleading before Agrippa, and his shipwreck at Melita.

The dining-room is wainscotted to a considerable height, and hung above with family portraits, among them being the builder of the house and her second husband, and the beautiful Duchess of Devonshire, by Sir Joshua Reynolds; and over the chimney-piece is this inscription:—"The conclusion of all things is to fear God and keep his commandments.—E. S. 1597." The drawing-room is also wainscotted and hung with ancient tapestry representing the story of Esther and Ahasuerus; and here are many valuable pictures, especially one of Arabella Stuart, who spent her early days at Hardwick with the Countess of Shrewsbury. On the grand staircase leading to the state apartments is some very fine tapestry, part of which, judging from the costume of the figures, is probably of a date anterior to 1428, the date of the tapestry

Fig. 120.—HARDWICK HALL.

in the long gallery. The presence chamber is of fine proportions, the walls being partly covered with tapestry which depicts scenes in the history of Ulysses, and with partly plaster ornamentation peculiar to the Elizabethan period. The furniture is of the same period, consisting of cabinets and tables and chairs from the old house, and deserving of particular attention. A door leads out of this room into the library, from the windows of which a charming view is obtained of the ruins of the other house and the western flower garden, and further on is the Queen of Scots' apartments, containing a bed, the hangings of which are said to have been worked by the Royal captive.

The picture gallery, which is 169 feet long, 122 feet wide, and 26 feet high, is hung with ancient tapestry and covered with portraits of the family of the noble owner, and of many other celebrated characters. Among the most interesting are those of Henry VIII., Queen Elizabeth and Mary Queen of Scots, Cardinal Pole, Bishop Gardiner, the Countess of Shrewsbury, her husband Sir William Cavendish, the first Earl of Devonshire, and Thomas Hobbes; which with many others—as appears from an inventory of the pictures in the possession of Lady Shrewsbury—once adorned the walls of the older house. A flight of steps made of solid oak leads up to the roof, which is covered with lead, and commands a most extensive and varied view of the beautiful park and surround-

ing neighbourhood. Far away towards the west are seen the distant hills of the Peak of Derbyshire, and on the eastern side of the house the eye wanders over a richly wooded plain in the counties of Nottingham and Lincoln.

At a stone's throw from the present house stands the ruins of the old Hall, in which the Countess of Shrewsbury lived and died, and where the philosopher Hobbes breathed his last. Unfortunately a great portion of this building was taken down in the reign of William III., and desolate are the remains of this once noble pile. The giants' chamber, however, so called from two colossal figures over the chimney-piece, still exists, and is of such beautiful proportions as to have been thought fit for the pattern of a room in the Palace of Blenheim. Other rooms there are almost entire, having ornamental chimney-pieces, and the windows of which command extensive views of the surrounding country; but they are fast falling into decay, and the ruins of this magnificent house once occupied by the great and noble of the land are tenanted by the owls and bats, which haunt the Ivy now covering in great luxuriance the walls of its deserted chambers.

The park to which we have already referred is remarkable for its fine old Oaks. One we measured, and it had a bole 80 feet in circumference at the height of 5 feet from the ground. During the last few years many improvements have been made by J. G. Cottingham, Esq., agent to the Duke of Devon-

shire and the Marquis of Hartington, consisting chiefly of new plantations and groups of trees so judiciously placed as to render the park one of the most picturesque in the county of Derby. Mr. Cottingham has also ever been anxious to promote the comfort and meet the wishes of the numerous visitors to Hardwick, and he has done much for the general benefit of the place.

As soon as the visitor is within the precincts of the western court he at once perceives that everything harmonises with the architectural arrangements of the mansion. A broad herbaceous border runs along the end and down one side of the court, while on the other side is a Yew hedge 8 feet in height, so shaped as to form a continuation of the coping of the wall. The flower beds are out out in the turf, the letters "E. S." being conspicuous among them. A plan of the flower garden will be given next week, when the reader will have an idea of the style of bedding which prevails at Hardwick, and which is so arranged as to present perfect sheets of the most varied and brilliant colours. The two grand Cedars of Lebanon at each side of the entrance gates were planted forty years ago.

Leaving the west garden by a side door the visitor enters an enclosure of eight acres on the south side of the mansion, which has been laid out in the ancient style by the Lady Louisa C. Egerton. It is divided into four parts by avenues of Yew and Hornbeam hedges running north and south and east and west, the grass walks between them being 20 feet wide and in excellent condition. The first part contains the croquet ground, surrounded by fine evergreens and Conifers, and amongst them will be found a handsome Cupressus macrocarpa, Wellingtonias from 30 to 40 feet high, fine Silver and Golden variegated Hollies, Austrian Pines, Evergreen Oaks, grand old Yews, and ancient Walnuts, the trunks of which average about 15 feet each in circumference. The second part, which is in close proximity to the house, is a fruit orchard, and Apples, Pears, and Plums are well represented. The third is chiefly taken up with Filberts and other fruit trees; and the fourth is entirely devoted to vegetables. Mr. E. Wilson is the gardener, and, as might be expected from his training at Chatsworth, is a thoroughly practical man. His skill and taste are evidenced in every part of the gardens at Hardwick, and the visitor will notice in the herbaceous border 200 yards long a collection of plants and flowers which is hardly to be equalled by any other in the United Kingdom.

The Hall and grounds at Hardwick are thrown open to the public, who come to them in great numbers during the summer months from Sheffield and other neighbouring towns and villages; and we can hardly picture to ourselves a prettier sight than the one afforded by those who, at other times seldom out of the sound of the rumble of machinery, are now wandering through the quiet groves of Hardwick, or sitting down on the green turf to enjoy the social meal; and we believe that the privilege thus accorded to the public by the liberality of the noble owner is gratefully appreciated, and tends not a little to lead multitudes to forget the cares and anxieties of arduous toil in the pleasure they derive from visiting, though for so brief a period, "this scene of other days."

### NIPPING FROSTS AND TENDER PLANTS.

WHATEVER difference of opinion there may be among the scientists as to the way in which frost acts injuriously on plants, there is none whatever among practical men as to its disorganising and destructive agency. It does not matter to him whether disorganisation and death are brought about by rupture of the cells, consequent on the congelation of the enclosed fluids, or rather, as some think, by the congelation of that which permeates the intercellular spaces; the practical fact is all the same. The winter brings its nipping frost, and susceptible subjects, if unprepared for, are caught and either killed outright or maimed. No one ought to cherish the advice of the gentle Mantuan more kindly and pray for mild winters than the gardener; for the fine talk with regard to "seasonable weather," the snow taking away the cold, purifying the air, and all that—severe winters, such as we just have had a sharp inkling of, are unquestionably notorious for running up the death-rate both of men and plants. In both cases this may unquestionably be largely modified by means of precautionary and remedial measures, if judiciously availed of. To some of these, as regards plant life, we now purpose to allude, with a view to throw out a few useful hints, as also to anticipate the inquiries of correspondents.

With regard to preventive measures, there is none more important than, in the first instance, trying by all means to secure, as much as may be, firmness and ripeness of newly-formed growths previous to the resting or winter period. Next, it is of importance that, in the absence of demand, the supply of moisture at the roots should be greatly reduced, and the soil kept on the side of dryness rather than otherwise—just moist, neither wet nor saturated. Having the foliage of house plants dry when frost is anticipated, and keeping it so during its continuance, is a point not to be lost sight of. Surfacing over the soil with dry moss or other light material, or placing the pots in which the plants are growing within others of a size or two larger, so as to retain a stratum of air between, are aids not to be despised. With regard to external measures for protection, it should be borne in mind that the great point is to prevent radiation, and the glass, that universal plant protector, is one of the most efficient of radiators. This being the case, it will be well to bear in mind that if, with a view to guard against the effects of frosts, recourse is had to external covering of glazed structures, such covering should not be of a kind or so placed as to be a most efficient conductor of heat instead of preventing its radiation. Therefore such coverings, if of matting or textile fabrics, should always be so arranged as to keep them from actual contact with the glass, and allow of an inch or so stratum of air between them and the glass, which stratum of air will be as a warm blanket and most potent protecting agent. It is in this way that double-glazed houses are so efficient in reducing risk to plants and lessening the consumption of coal. Where other and extemporised coverings are availed of, they should be always such as will not lie closely or solidly, but rest elastic and lightly on the glass, with air filling their every interspace, such as dry hay or straw, dry leaves, moss, or fern. It will be well to bear in mind that vegetable tissues may be actually frozen and yet come again all right, provided a rapid thaw is guarded against, and the normal condition allowed gradually to come about.

We have a familiar instance of this in the case of pitted Potatoes. If after frost sufficiently severe to reach them, the pit be opened and the tubers suddenly exposed, they are done for. If, on the other hand, the pit be allowed to remain intact and not disturbed for some time, no harm is done, and the tubers come out in good condition. This will explain why it is autumn-planted Potatoes come safely through, and that we so often see among corn succeeding Potatoes fine healthy plants of the latter growing from tubers which chanced to remain in the ground with perhaps very little, or scarcely any, depth of soil to protect them from frost. Here we have a lesson never to expose frozen plants suddenly to artificial heat, sunshine, or light. When the action of frost on soft, succulent, free-growing plants, such as Cinerarias, Calceolarias, and the like is inconsiderable, and there is no disorganisation of the tissues, placing them in shade and syringing with cold water are familiar and successful agents in restoring frost-bitten subjects. Fearing that we may not have yet seen the worst of the present winter, and that sharp frosts and anxious hours are yet before us, we have thought it not unseasonable to throw out these few hints with regard to preventing or modifying the injurious effects of the plantsman's dread—the nipping frost.—(*Irish Farmers' Gazette*.)

### NOTES ON VILLA AND SUBURBAN GARDENING.

**CAMELLIAS.**—One of the most sought-for flowers at this season of the year is the Camellia. For the decoration of the greenhouse it is a gem, and those who attend balls and other parties so prevalent at this time are not willing to go without a flower if it can be obtained. Many an amateur will grow a Camellia where he might grow other plants with less trouble and more certainty of plenty of bloom. The fact is that the plant is estimated by many to be able to take care of itself, being supposed to be of that hardy nature as to be sure to flower when the time comes round. This is wrong, for the Camellia needs as much attention as any other plant. There are seasons when it will apparently do without the attention that other plants require, but it is only when the preliminary treatment has been good.

The Camellia is a plant which ought to have a good foundation laid at the beginning, whether it be grown in a pot or tub, or planted out. For pot-culture the one-shift system is the best, which obviates repotting every year; but for this system effectual drainage must be provided and good soil. The latter might consist of rich loam of a turfy nature, and sufficient sand to make it open; this will last a long time and support the plant well. I have often thought that the best way of growing

Camellias is by planting them out; they are not very vigorous-rooting plants, and they are better let alone after being properly placed; and it is astonishing what a small place a plant requires in regard to rooting space, but it must be abundantly supplied with water—in fact, if the plants are rooting well they can scarcely have too much in the ordinary way of watering. It is not often that a plant in vigorous health casts its buds—a circumstance so prevalent about here this season.

The plan of turning the plants outdoors after the growth is made is a matter that needs more care and attention than is usually given. Wherever they are placed the pots ought to be plunged or protected from the sun in some way. The roots being so fleshy and so fond of moisture, any neglect in watering with a fierce sun playing upon the pots does more injury than many people imagine, and it is these sort of checks with an irregular course of treatment that causes the buds to drop.

Camellias are plants that require a very even temperature, and at no time require much heat; but during the time they are making their growth—that is, after the bloom is over, they require most, and not at that time more than 60°. They like moisture overhead at most times, and especially when making new growths. After the growth is made particular care is necessary that the plants are not turned outdoors too soon, for this is a most dangerous time, as the sudden transition from the even temperature of the house to the variable temperature outdoors, perhaps one hour cold and the other warm, does an amount of mischief which cannot be remedied at no time during the season, and is one of the principal causes of the Camellia falling into bad health, and when that is so these are among the most difficult of plants to bring round.—THOMAS RACORD.

## DOINGS OF THE LAST AND WORK FOR THE PRESENT WEEK.

### KITCHEN GARDEN.

We have been digging vacant ground and borders for early Peas and Potatoes. The borders for Peas ought to have been dug in October or early in November; for it does not give the Peas the best chance to flourish if sown in a week or so after the ground has been dug, unless it should be dry, which is not the case this season. When the ground is wet at the time of drawing the drills there is usually some dry material that has been turned out of the potting-shed, or, what is better, the surface soil from inside Vine borders that has been removed to allow of fresh dressing; this is used to fill up the drill instead of the wet surface soil of the border. The Peas are sown in drills across the border 3 feet apart, and we sow thicker at this season than we do later, when the seed is not so liable to accidents. Should the weather continue favourable the Peas will be sown before this is in the hands of the printers. It is necessary to tread as little upon the ground as possible when it is wet. Rather than tread upon the ground we have a few boards laid down to tread upon when drawing the drills. There is some difference of opinion about manuring the ground for Peas. There are some who grow fields of Peas in this neighbourhood for market purposes, and they seldom apply manure for Peas, but they are usually sown on ground that has been heavily manured for the previous crop. Our ground is always manured for the first crop, and we prefer to trench the manure in. If this is not done it is dug-in deeply. The varieties that are sown now for the earliest crops never grow too much straw. We shall trust entirely to the two early varieties of Mr. Laxton's—William I. and Alpha; they are both blue Peas, the latter is a trifle later than the other, and is a wrinkled Marrow. With the above will be sown a few rows of Dr. Hogg for comparison. It was tried last year with the later crops, and our impression is that this is the best Pea that Mr. Laxton has yet sent out to the public.

We shall also place single layers of the early Potatoes in shallow boxes in the course of a few days, just covering the tubers with cocoa-nut fibre refuse. They are now lying in a dry loft and are sprouting. If they were left where they are for a month or six weeks the sprouts would be drawn-up weakly, and would have to be removed at the time of planting. We shall place the boxes in the cool orchard house as near the glass as possible; the tubers will in such a position sprout more slowly, and will be strong plants at the time they can be transferred to the border. Those who can command glass lights or any of the numerous glass protectors are fortunate, and ought to use them for their early Peas and Potatoes on the wall borders.

Cauliflower plants under handlights are doing very well this season. The lights are removed every day while the weather continues mild. Of course the plants are kept clean, and slugs are destroyed if there is any trace of them on the plants. We have other plants under glass frames which will be planted out early in March if the weather is favourable. In a cottager's garden close to us may be seen a healthy lot of Cauliflower plants, and the owner of them seldom fails to have Cauliflowers in almost as early as we do, and at that time the heads com-

mand a good price in the market. He has no glass, but puts his plants out under the shelter of a low bank facing south. He has some short litter at hand to throw over them in severe frost. The worst enemy to them seemed to be the slugs, to which the old bank and litter affords shelter. Sow Mustard and Cress in boxes, to be placed in vineries or anywhere where there is a little heat.

### PINE HOUSES.

It does not seem to be universally believed that to grow Pines successfully there ought to be three compartments which can be heated separately. We know a gentleman who thought that in one house Vines and Pines, Cucumbers and Melons, could be tolerably well grown. It would be possible for such a miscellaneous collection to exist together, but none of them would give satisfaction, and those who wish to grow Pines well must have three houses—the fruiting house for established plants, which ought to be the largest; next to it in size should be the succession house for intermediate plants; and a smaller house or lean-to pit for crowns and suckers. The suckers which were potted early in September last year are still at rest, and will not be started for two or three weeks. The lean-to pit cannot be heated above 50° in cold weather, but we can command 55° except in very severe frost. The other houses are also at rest, and the temperature is from 55° to 60° at night, or it may be 65° when the weather is mild. The higher temperature will not unduly excite the plants if the hot-water pipes are only moderately warm. A number of fruits in the fruiting house are swelling nicely with a low night temperature, say 55° to 60°. Smooth-leaved Cayennes that have thrown up early in December have not been ripe until the following June, but the fruit has been of good quality, and has carried off first prizes at the London shows in that month. The temperature of the tan beds is about 80° or 85°.

### CUCUMBER HOUSE.

The occupants of this structure will not continue in health if considerable care is not taken both in ventilating the house and in applying the proper amount of heat and atmospheric moisture. Fresh air must be admitted every day by opening the top ventilators a little, unless the weather is unusually severe. Our house is kept at 65° at night, with an increase of from 5° to 10° by day. Then as to atmospheric moisture, one cannot give instructions about this unless the heating power of the pipes is taken into account. If it is necessary to heat the pipes very much to raise the required temperature, then it will be necessary to sprinkle water about very frequently; when it is not necessary to heat the apparatus so much, less moisture in the atmosphere will be required. The growths ought not to be allowed to become crowded.

### PEACH HOUSE.

It is now a good time to start the early Peach house. Of course the trees have been pruned and the branches trained to the wires. The inside borders should have a thorough watering. In previous numbers it has been stated that the Peach-house border should not be allowed to become dust-dry. The night temperature should not be above 50° from artificial heat; 45° will be high enough at first. The trees in later houses that have not yet received any attention should be pruned; in doing so save the moderately strong wood, cutting out entirely the most vigorous shoots. All the young wood that is furnished with single blossom buds will have a leaf bud at the end; such must not be cut back unless there should be a triple bud on the shoot, the centre one of which is sure to be a leaf bud, which will form a leader to the branch for next year.

### PLANT STOVE AND ORCHID HOUSES.

There is now a goodly display of flowering plants to be obtained in the stove, although many that were in flower a month ago are still in beauty. The different varieties of Epiphyllum are very showy and most distinct in character. Small plants struck from cuttings, and potted in 60-sized pots, are arranged on the outer edge of the stages, and very pretty they are with the richly-coloured flowers clustering on the pendant growths which hang over the sides of the pots. Standards 1, 2, or 3 feet high are very effective when placed with the stems rising through an undergrowth of the dwarfier species of exotic Ferns. A very useful old plant which we also have in plenty at this season is the *Thyracanthus rutilans*. It is very easily grown from cuttings, which make large flowering plants the first season. The pendant panicles of red flowers have a very novel effect. Very useful both for decorative purposes and for cut flowers is the *Euphorbia jacquiniiflora*. It has also the merit of being easily cultivated, and forms nice flowering plants in the winter from cuttings of the previous spring. *Eranthemum pulchellum* is also a very beautiful and distinct stove plant; its intense blue flowers are closely arranged on short terminal spikes, and are abundantly produced. It is one of the easiest cultivated plants we have, and strikes freely from cuttings.

We fumigate the houses frequently to destroy thrips. The plants at this season will not be injured by as much smoke as will kill the insects. Washing with strong soapy water is recommended to kill thrips. It will do this if the insect can be

touched with the water; but this cannot always be done, and we know that frequent fumigations at this season will destroy the pest. Mealy bug is equally troublesome; tobacco smoke does not annoy it much. The only sure way to rid the house of it is to watch the plants every day or two, and destroy every insect that can be found, either by washing, or if the plants are not much infested with it, the bug may be picked-off by hand.

#### FLOWER GARDEN.

Since the snow with the accompanying frosts have disappeared, the ground has been so wet that it has not been possible to wheel barrows over the walks or to tread on borders with the feet. As soon as the surface is a little hardened by frost the Roses will be mulched with rotted manure. The lawn is swept and rolled about once a week or ten days. The grass has a rough uneven appearance in winter when this is not done. It should neither be rolled nor swept during frosty weather. If a roller is passed over grass when it is crisp with frost the blades of the grass are broken, and when the thaw comes the decaying grass is very unsightly.

Bedding plants are looked over occasionally, and all decaying leaves picked off. Zonal Pelargoniums of the tri-color and variegated section were potted-off in September and October. The more hardy green-leaved sorts will now be potted as soon as possible. Auriculas are looked over about once a week; the leaves are decaying rapidly, and have frequently to be removed. They cause mould and decay in the stems sometimes if their removal is neglected. Carnations and Picotees in frames are remarkably strong and healthy this year. The lights are removed entirely on fine days, and they require but little water at the roots. Pinks have to be pressed into the ground after frost, by applying the fingers of each hand round the roots.—J. DOUGLAS.

### HORTICULTURAL EXHIBITIONS.

SECRETARIES will oblige us by informing us of the dates on which exhibitions are to be held.

WESTMINSTER AQUARIUM. April 18th and 18th, May 10th and 11th, May 30th and 31st, July 5th and 6th, October 4th and 5th.  
MAIDSTONE (Roses). June 21st. Mr. Hubert Bensted, Rockstow, Maidstone, Sec.  
SPALDING. June 21st. Mr. G. Kingston, Sec.  
SOUTHPORT. July 6th, 7th, and 8th. Mr. E. Martin, Sec.  
HELENSBURGH (Roses). July 12th and 18th. Mr. J. Mitchell, Sec.  
DUNDEE (International). September 7th, 8th, and 9th. Mr. W. R. McKelvie, 26, Euclid Crescent, Sec.

### TRADE CATALOGUES RECEIVED.

James Veitch & Sons, Royal Exotic Nursery, King's Road, Chelsea.—*Catalogue of Kitchen Garden and Flower Seeds, Implements, &c.*

Sutton & Sons, Reading.—*Illustrated Amateur's Guide and Spring Catalogue.*

James Carter & Co., 287 and 288, High Holborn, London.—*Illustrated Vade Mecum and General Seed Catalogue.*

William Paul & Son, Waltham Cross, London, N.—*General Seed Catalogue.*

James Vick, Dorchester, N.Y.—*Illustrated Floral Guide and General Seed Catalogue.*

Dicksons & Co., 1, Waterloo Place, Edinburgh.—*Descriptive List of Gladioli.*

### TO CORRESPONDENTS.

\* \* All correspondence should be directed either to "The Editors," or to "The Publisher." Letters addressed to Mr. Johnson or Dr. Hogg often remain unopened unavoidably. We request that no one will write privately to any of our correspondents, as doing so subjects them to unjustifiable trouble and expense.

Correspondents should not mix up on the same sheet questions relating to Gardening and those on Poultry and Bee subjects, and should never send more than two or three questions at once. All articles intended for insertion should be written on one side of the paper only. We cannot reply to questions through the post.

BOOKS (A. W.).—"Keane's In-door Gardening" may be had from our office if you enclose twenty postage stamps and address.

AMERICAN BLIGHT (S. S.).—The Rev. Mr. Badlyffe states:—"The quantity of salt is not of particular consequence; a couple of double handfuls in a stable bucket of fresh slaked lime-water would be sufficient. I believe the lime without the salt would destroy the blight. Lichens or moss on the trees greatly favours the blight and also stop-up the stomata of the skin. Lime-and-salt wash will destroy them and cleanse the trees."

OYSTER SHELLS (W., Kensington).—Whether calcined or bruised they must be prepared at home. In a furnace they are easily burned, and in a chemist's large iron mortar they are easily pounded.

CONTINUOUS CROPPING (M. A. H. B. L.).—Lettuce sown in March or early in April would be off early in July; but as that is too late for sowing Veitch's Perfection Pea, you may at the early part of June remove every fourth row

of Lettuce, they being in rows a foot apart, and sow the Peas in the place of the Lettuce. The Peas will be ready in September, and may be cleared off by the first or second week in October, when you could plant Lettuce to stand the winter in the ground after the Peas, the Lettuce being sown the third week in August. Lettuce and Radish may be followed by Celery, but the Celery would not be off in time to be again followed by Lettuce. Cabbage planted after the Lettuce and Radish would be off at the end of September or early in October, and might be followed by Lettuce transplanted. The best summer Lettuce is Paris White Cos; Kiah's Hardy White Cos is also excellent.

ANNUALS FOR CUT FLOWERS (Idem).—"Agrostis Imperial Dwarf, Chrysanthemum carinatum Dunnettii flore-pleno, C. carinatum Dunnettii, double golden; Centaurea cyanus major, "Delphinium French hybrids (if sown early they will flower the same season though they are perennials); Heliopsis monstrosum varieties, particularly useful for dried flowers for winter bouquets; Leptocarpus densiflorus albus, Mignonette Large-flowered pyramidal, Sweet Pea in various colours, Scabious dwarf, Sweet Sultan, purple, white, and yellow; "Ten-week Stocks, "Phlox Drummondii var., "Aster Dwarf Bouquet. Those marked with an asterisk require to be sown in a hotbed in March, and the plants pricked off an inch apart in pans or boxes when large enough to handle, and grown-on in gentle heat, hardening well off and planting out in May.

PIPING REQUIRED FOR WARM STOVE (Nat., Reading).—One-foot run of 4-inch pipe, or 1-foot superficial of heated surface, is not sufficient to heat and maintain 15 cubic feet of air to a stove temperature; 2 feet should be the minimum of piping to heat to a warm stove temperature 15 cubic feet of air, and with double glazing this amount of piping will be sufficient, as the temperature will be less liable to cool than in the case with single glazing. It is a great mistake to restrict the piping, for when that is the case the heated surface requires to be kept at a high temperature, and the furnace to maintain it needs to have in it a fire in a high state of combustion, and the greater the fire the greater will be the velocity of the heat in the direction of the chimney, more fuel being required and a greater proportion of the heat generated escaping by the chimney.

LIQUID MANURE FOR AZALAEAS (Idem).—These and other hardwooded plants growing in peat soil do not require liquid manure, or only in a very weak state, and the best for them is one peck of soot and fresh cow dung mixed with sixty gallons of water, and applied twice a week during growth, or when the plants are advancing for flowering, the pots being full of roots. Except in experienced hands the application of liquid manure to hardwooded plants is best omitted, as its injudicious use is often attended with disastrous consequences.

AMMONIACAL LIQUOR FOR DESTROYING WEEDS ON WALKS (J. R.).—It will certainly kill most of the weeds when applied at full strength, or cause them to be very much browned, yet from the high fertilising character of the liquid the weeds will grow considerably stronger the following season. Besides, it is a great waste of manure, the ammoniacal liquor being valuable for watering during growth diluted with sixteen parts of water, especially vegetable crops; and applied at half the dilution, or one pint to a gallon of water, at the time of sowing or planting, it is a good preventive of insect pests and a valuable fertilizer for the crops. If you apply it for destroying weeds, do so in dry weather in April. A better remedy for weeds on walks is to dissolve 1 lb. of powdered arsenic in three gallons of cold water, boil, and keep stirring; then add seven gallons of cold water and 2 lbs. of crushed soda; stir the whole well whilst boiling, and with a rose watering-pot apply to the walks in dry weather, from March to May inclusive being the best time. The above quantity will be enough for 25 square yards. An inclining board should be placed at the sides of the walks or grass to keep off the hot liquid.

DESTROYING ANTS ON LAWN (W. S. B.).—We were once greatly troubled with ants, but now are remarkably free of these troublesome pests. For the past three seasons we have had penned near the lawn hens, foster parents to young pheasants, and it is certain the ants have become very scarce. A hen in a coop with a brood of chickens would no doubt answer as well, the coop being placed near the nests or haunts of the ants, moving it as circumstances require. Guano sprinkled over the nests will drive the ants away, and arsenic mixed with treacle and smeared on pieces of tile or slate will destroy all that partake of it, but great care is required to be taken in the use of this virulent poison.

RAINING PLANTS FROM SEED FOR ROCKWORK (Idem).—*Alyssum saxatile compactum*, *Antennaria dioica minor*, *Arabis alpina*, *Anthriscus gracilis*, *A. purpurea grandiflora*, *Campanula carpatia*, *C. carpatia alba*, *Dianthus neglectus*, *Ericus alpinus*, *Saxifraga aizoon minor*, *S. Cymbalaria*, *S. longifolia*, *Silene caucasicola*, *S. Schaffa*, and *Veronica saxatilis* and *V. prostrata* are suitable. Seed should be sown in April in pots or pans well drained, and filled with a compost of turfy loam and sandy peat in equal proportions, with a fourth each of leaf soil and silver sand, the compost sifted, and the surface of the pots or pans made very fine and smooth, and well watered, standing for a few hours, then water again, and when the water is soaked in scatter the seed evenly over the surface and just cover it with very fine soil. The pots or pans should be placed in a sheltered position, and so that the sun does not fall upon them from 8 A.M. to 5 P.M., or shade from the sun for that period, the main point being to keep moist without having to resort to frequent waterings. When the young plants are large enough to handle prick out in pans prepared as for the seedlings about an inch apart, treating similarly, and before they become crowded plant in the rockwork, shading until established. Seeds of rock plants are not in given kinds always procurable, hence we advise you to procure a collection of half a dozen or a dozen kinds as you may wish, stipulating for good free-growing hardy kinds.

GREENHOUSE FLOWERS LOSING COLOUR (A. B.).—The loss of colour is the result of the plants being grown at a distance from the glass, and not having light sufficient to bring out the high colour, with probably a deficiency of heat and moisture during the growing season. Afford a position near the glass, and a moister atmosphere and braker heat, with partial shade in very bright weather during growth, but full exposure after August. A temperature of 65°, rising to 80° or more from sun, is desirable when in growth, and 60° to 65° from fire heat when coming into bloom. A compost of turfy loam, sandy fibrous peat, and leaf soil, in equal parts, with a sixth each of silver sand and old cow dung, the whole well mixed, broken up rather small, but not sifted, will grow them well. Water moderately, not allowing the foliage to flag for lack of it, nor the soil to be soddened by too frequent waterings.

HEATING A SMALL GREENHOUSE (O. E. P.).—Had you been certain of a proper supply of gas we should, in preference to any other mode of heating, you having little time to spare—have advised you to have a gas-heated boiler

and 2-inch hot-water pipes, a flow and return, along the front and both ends or, if the piping may not be taken across the end of the house from the doorway, interfering with that arrangement, have piping in front or at back to make the quantity of piping required, which will, to exclude frost, require about 56 feet of 2-inch piping. Owing to the pressure of gas being not more than half after midnight, we should have a stove boiler, and fix it in the shed at the back of the greenhouse, having attached to it the quantity of 2-inch hot-water piping above named. A boiler of the kind named would not require very frequent attention.

**POULTRY DUNG (G. M.).**—It is applicable to all plants and crops that need manure. Containing much ammonia it must be used cautiously. An ounce to a gallon of water for potted plants. For kitchen-garden crops it may be applied an inch deep on the surface before digging.

**DESSERT PEARS FOR DUREM (A Northerner).**—Bourré Superfin, Oct.-Nov.; Doyenné du Comice, Nov.; Marchal de Cour, Nov.-Dec.; Marie Louise d'Uccle, Oct.-Nov.; Thompson's, Nov.-Dec.; Fondante de Charnes, Nov.-Dec.; Comte de Flandre, Dec.; Haeon's Incomparable, Dec.; Winter Nells, Dec.-Jan.; Bourré Bachelier, Jan.; Forelle, Jan.-Feb.; Bourré Sterckmans, Jan.-Feb.

**COAL TAR FOR FENCING (S. P. F.).**—Applying it at this season to the outer side of the fence would not injure trees on the inner side. We have some boarded fences dressed with Stockholm tar, and we have found it injure the leaves in summer when the sun melted the coating. You should only use a coping-board before the blossoms opened, and remove it again when the fruit is set. The small quantity of rain water from it would not injure the trees.

**PEARS FOR SUCCESSION (Idem).**—William I. is the best early. Add G. F. Wilson to the other two sorts you name.

**PLANTING BORDER FACING EAST (J. F. K.).**—We have a border in precisely the same position as yours; it is also sheltered by shrubs. Part of it has been planted with herbaceous plants, and the remainder with mixed bedding plants. Both have succeeded remarkably well. We trenched and manured the ground first, and the subsoil is well drained.

**NAMES OF FRUITS (L. L.).**—1, Blenheim Pippin; 2, Gravenstein; 3, Hollandbury; 4, Alfriston; the other two not known.

## POULTRY, BEE, AND PIGEON CHRONICLE.

### POULTRY, PRESENT AND FUTURE.

It is said we can get used to anything in time, and we believe it; and although we can recollect some years ago at school we had a round-hand copy telling us that "familiarity breeds contempt," we can give only a qualified assent to it. There are certain things that occur annually and seem to be more pleasing each time. It is so with our present task. For many years we have been accustomed to take a review of the past year as it bears on our favourite pursuit. We can imagine how many, on reading our words, will participate in our feelings when we say the paramount is gratitude that we have been spared again to the end of another year.

Our task is easier than it was of old. The subject is more generally understood. Improvements have been suggested and carried out, and the capabilities of every breed of fowls, &c., tested to the utmost. To those who, like ourselves, have watched the progress of the pursuit, it has often been matter of surprise to see with what facility the requirements of judges have been met. It has seemed merely a question of time. We are not yet, however, so far advanced in manufacturing colour as our German neighbours. Some years ago a man offered to make any bird (Pigeon) we liked in three years; we had one coloured in the most grotesque style and sent it. We had the fac-simile alive within three years. This has been done in England in poultry. We can get anything to a feather, but we do not yet find we advance much in providing a larger amount of food; neither is there as great an advance in the quality of the poultry offered for sale as there is in the beauty of shape and plumage for exhibition. The number of shows proves the great interest still taken in the pursuit, and shows how deep-seated is the love of natural history in most minds. The prices still realised for good birds prove that the friendly competition of a show is popular. We must, however, believe that there is another future for poultry, and that it must supply more and better food than it yet does. Poultry should not remain the luxury it is, nor should it be impossible to get a really good fowl in a country town. The principal cost of rearing and fattening it is not in outlay but in labour. It will not pay to hire to do that which may be done by ourselves. We are not about to say that everyone should breed and fatten poultry, but we do say that where anyone is disposed to pay personal attention to the subject, especially in the matter of feeding, poultry will pay its own expenses if it does not leave a profit.

Our old friends the Cochins have shown still with what facility the Eastern breeds acclimatise. The same may be said of the Brahmas and the French breeds: they not only adapt themselves to our climate but they improve both in size and constitution. Those who have noticed our latest novelties in the shape of Houdans and Crève-Cœur must have remarked the great increase of size. There is ebb and flow in poultry as in all other things. Some years ago the Spanish was one of the principal classes, and many can recollect a celebrated show where two pens were sold for £300, and single birds commonly

made £20 each. Now they are as good as ever, but they make only a moderate class. The Silver-pencilled Hamburgs again have fallen both in numbers and quality till they have become a small class. The Golden do not require the same mention, but they do not hold the position they did. Their quality, however, has not suffered. Dorkings have fallen off in numbers at the great shows. They have held their own in other respects. After an absence of many years the Black Cochins have reappeared in tolerable numbers. Bantams have visibly decreased during the past year. Even at the largest shows the Sebrights cut but a poor figure, and the Game are less numerous. Had the old spirit been alive the pretty little Cochins would not have been allowed to die out. A pen of them now would make a large sum. The Rouen Ducks have in every way distanced the Aylesburys. Malays have looked up during the past year. Turkeys have made progress, not, perhaps, in the weights of the prize pens, but taken as classes they have been heavier. A recent introduction—the class for ornamental waterfowl—has exhibited not only beautiful but rare specimens. The lately rare Carolina and Mandarin Ducks are now shown in classes. The varied Whistling Ducks, the Bahama Teal, and even the Bar-headed Geese, have been seen quietly viewing the hundreds of spectators who stayed to look at them or who passed them by.

Pigeons have increased in popularity. They have always been pets, but never so generally so as at the present time. Many years ago, perhaps nearly half a century, we were struck with the Pigeons in our German Noah's Ark—many coloured; some with coloured wings and white bodies, and some just the reverse. As we stood them in a row, resting on two stumps and their tails, it was often remarked by our seniors, who were "o' the fancy," that the Germans allowed their children to colour them to their fancy, for such birds had never existed. We now have every bird and in any numbers.

We have warmed on our subject and have gone on writing just as if we were talking to one of our numerous friends. We have much pleasure in it. We have prospered and do prosper, and we like to believe we have only friends for subscribers, readers, and contributors. We are thankful we have nothing to disavow; and while we look with pride on the years of public favour we have enjoyed, we still believe we move with the age, and it is our purpose to do so.

We cannot believe that, during this year of 1875, we have caused pain to anyone. We are sorry if we have, for we have not done it willingly.

We seek to do impartially and aright, and to all with whom we have to do, and whom we thank, we heartily wish

A HAPPY NEW YEAR.

### TUNBRIDGE WELLS POULTRY SHOW.

THIS Exhibition was held on the 17th, 18th, and 20th inst. The entries were fair and the quality good, but there were several other shows held on the same days in other parts of the country, which must have damaged the entries here. The great drawback, however, was the detention of the birds over Sunday. We know for a fact that two of the greatest exhibitors in the neighbourhood refused to countenance this Sunday business, and would not send a feather. We really think they did well, for there can be no occasion for a country show to have a Sunday included at all; and really the late lamentable going-on at another Kentish show held a few days ago where the birds were kept over the Sunday—when specimens were changed and birds got out—will make exhibitors nervous, we hope, of entering at them. We really do wonder they can countenance the fact, for there is no doubt exhibitors have it in their power, by not supporting such exhibitions, to stop the practice. Mr. Leno and Mr. Martin judged the poultry, and their awards were satisfactory. Mr. P. H. Jones awarded the Pigeon prizes, except in the Homers where Mr. Cotton adjudicated, both also satisfactorily.

Dorkings were good, but not up to the standard of the last Show. The cup went to a grand pair of Coloured birds. We did not care for the way this variety was classified, as it gave no chance to the Whites and Silvers against the Coloured, which could be entered in every class. Cochins were a nice lot, the Buffs really admirable. The cup went to a fine pair of Buffs in beautiful feather and of much quality. Second and third were good birds, well-coloured and large. In the next class a fine pair of Whites were first; we liked the hen very much. In the next class Lady Gwydyr's bird was a splendid fellow. Beyond the prize birds there was not much else up to the mark in this class. Brahmas were very good in quality and quantity; they did ample justice to the good fare provided for them and came in goodly numbers. The cup went to Cresting for a grand old cock, monstrous, deep and good in colour. In hens Mr. Ansdell's old hen looked very well; adult Lights were nice, and we are glad to see Mr. Scott winning again with his old loves. Dark Brahma cockerels were very good, the winners really excellent; while the Lights made two large classes of much merit, the cup going to an admirable pullet. The noticed birds too





they were a better match. Jacobins, Turbans, and Trampcoats were not very numerous nor the quality first-rate. English

There was nothing of note adequate outside the first class.  
**Pigeons.**—Here we were glad to note an improvement in the classification of the Pouters, and a consequently more numerous country as well as a great advance in quality. Pouter cocks had eleven exhibits: first a grand bird of a bad colour (Red); second also Red, but though a good one also deficient in that point; they were however undoubtedly the best birds. Third wanted fair Mealy. Pouter hens were headed by a nice Black, which was also won the special for best bird in the first five classes. Second stylish Blue, third Black. Young Pouters numbered eight; first was a good Red hen, a stylish bird with a nice pair of legs; second White (cock) with as good a pair of well-set-on legs as any Pouter in the Show. Carriers were not very numerous, but we certainly liked the second, a grand Black hen far before the first, a bad-coloured Dun cock, but we understand the Judges thought the former a cock also. Barbs were, except the first, only middling; there however were really good Yellows. Tumblers, first Kites and we think two hens; second, Red Agates, the cock vary wry-beaked; third, Almonds, a good pair, well-coloured cock, hen bad in that respect, but both good heads. Highly commended were nice Yellow Agates. Common Tumblers were fair; third was best had they been in order, but one bird was very ill. Fantails were, except two pens, bad; first were nice pair but not up to the third, though we must confess they were a better match. Jacobins, Turbans, and Trumpeters were not very numerous nor the quality first-rate. English

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SIX NEWBORN CAMELIDS—1 and 2, G. & J. Mackley. 3 and 4, Captin and Fairbairn. 5, J. Yallop. J. Adams. 6, E. W. Latham.  
SIX LIZARD CAMELIDS—1 and 2, Captin & Fairbairn. 3, E. B. Newcom. 4, J. Adams. 5, J. Yallop. 6, E. W. Latham.  
GOLDFISH MULES—1 and 2, G. & J. Mackley. 3, E. W. Latham. 4, J. A. Adams. 5, J. Adams. 6, J. Yallop. W. Evans.

Owls were the reverse, being extra fine. Nuns and Magpies were good; while in the Variety first went to Foreign Owls, second to Archangels, and third to Ice. We published the awards last week.

### BELFAST SHOW OF POULTRY, &c.

THE North of Ireland Ornithological Society's Show was held in the Ulster Hall on the 15th and 16th inst. This place is well chosen for the purpose, and the Show was well managed by a staff of thorough fanciers. The entries were in advance of those of last year, and the quality was good in all the sections. The pens were supplied by Messrs. Turner of Sheffield.

**Dorkings** headed the list, and these, and most others, were shown singly, the Dark Greys being very good, as also the Silvers, the cocks being especially good. In Buff Cocks the winners were some grand birds; the winners were of this year. Hens were even better, and very uniform in quality. In cocks the cup was won by the Buff priced at £5 in the catalogue; and in hens a grand old White was awarded the piece of plate. Partridge cocks were very good. Dark *Brahma* cocks were very good; but of the rest both Dark and Light little can be said, the Lights being positively poor. In *Spanish* were some good birds, the first-and-cup cockerel one of the best seen this season; second also good; third an aged bird. In hens a most extraordinary bird was placed first; the second a grand pullet. *Game* were not numerous, but the winners good, the cup going to a capital Pile cock. *Houdans* were a fair lot; the *La Flèche* very fine, and won the cup. In *Hamburgs* the Golden-pencils and Spangles were much better than the Silvers, the cup going to a most perfect pen of Pencils, closely pressed by another pen of that variety. These were all in pairs, as also the French and all the Bantams. *Game Bantams* were poor except the winners, the Blacks being extremely good—better, in fact, than any we have seen this year. In the Variety *Sebrights* were the winners. *Malays* were very good, and the *Polands* also. In the Variety class the Black Hamburgs and Guinea Fowls were the winners. Both the Selling classes were very large, and there were some good cheap birds. The *Rouen Ducks* were a fine lot, but the *Aylesburys* not so good. In the Variety class first were *Mandarins*, second *Spotted Bills*, and third *Carolinians*.

**Pigeons** were a grand display, and were placed in a separate part of the Hall. The show of Pouters and Carriers being one of the best seen this season, the members' classes contributing birds of high quality, and in many of the standard classes almost every bird was noticed. The *Short-faced Tumblers* and *Barbs* were not numerous, and the *Red Jacobins* not as good as we expected to find; but the *Yellow*, *Black*, and *White Jacobins* were most splendid classes, among which it would be almost difficult to particularise. *Trumpeters* were very good, the combination of feet-feathering with rose and crest, so long desired, seem to be on the point of attainment. There were some very good *Fantails*, the *Blues* being uncommonly good for that colour. *Owls*, *English*, were very good, and the winners *Blue*. *Turbits* of both classes were really good, a Silver winning the cup. The *Nuns* were perfect. *Dragoons* and *Antwerps* very good also, and well placed. There were some heavy Selling classes, with the quality of which we were not particularly struck, though many pens sold very well.

**DORKINGS.**—Coloured, except Silver-Gray.—Cock.—1, Cup, and 2, J. Walker. 2, W. G. Mulligan. *he*, W. H. King. W. H. Crabtree. *c*, Rev. S. A. Brennan. *hen*.—1, J. Walker. 2, W. H. Crabtree. 3, J. Hollway. *he* and *he*, W. G. Mulligan. *c*, W. H. King.

**DORKINGS.**—Silver-Gray or White.—Cock.—1, W. G. Mulligan. 2, J. Stevenson. 3, W. H. King. *c*, Miss De Courcy Drevier. *hen*.—1 and Cup, J. Walker. 2, W. H. King. 3, J. Stevenson. *he*, W. G. Mulligan. *c*, Miss De Courcy Drevier, W. G. Mulligan.

**COCHINS.**—Buff or Cinnamon.—Cock.—1, Cup, and 2, M. Mahoney. 3, W. G. Mulligan. *he*, W. H. Crabtree. *he*, Mrs. Pollock. *hen*.—1, F. Robertson. 2 and 3, W. G. Mulligan. *he*, W. G. Mulligan. M. Mahoney (3), Mrs. Hutchinsan, Capt. Sullivan, W. H. Crabtree. *c*, D. Sullivan.

**COCHINS.**—Any other variety.—Cock.—1, W. H. Crabtree. 2, W. G. Mulligan. 3, Dr. Stoney. *he*, W. G. Mulligan (3), M. Mahoney. *c*, W. Shaw. E. P. Williams. *hen*.—1, Cup, and 2, W. Whitworth. 3, M. Mahoney. *he*, W. G. Mulligan. F. Pettin.

**BRAHMAS.**—Dark.—Cock.—1, Cup, 2, 3, and *c*, W. G. Mulligan. *he*, A. Comyns, Jun. H. J. M'Brade (3), E. Bright. *hen*.—1, W. H. Crabtree. 2, W. G. Mulligan. 3, R. Niven. *c*, W. G. Mulligan (3), H. J. M'Brade.

**BRAHMAS.**—Light.—Cock.—1 and Cup, W. H. Crabtree. 2 and 3, E. T. Herdman. *hen*.—1, W. H. Crabtree. 2 and 3, T. Herdman. *c*, D. Sullivan, A. Field.

**SPANISH.**—Cock.—1, Cup, and 2, W. G. Mulligan. 3, W. Martin. *he*, J. A. and M. F. Smyth. J. Ross. *hen*.—1, J. Powell. 2, J. A. and M. F. Smyth. 3, J. Ross. *he*, *he*, and *c*, W. G. Mulligan.

**GAME.**—Black Red or Brown Red.—Cock.—1, J. F. Walton. 2, F. Robertson. 3, J. Ferguson. *hen*.—1, J. F. Walton. 2, Furness & Sudall. 3, F. Robertson. *Game.*—Any other variety.—Cock.—1 and Cup, J. F. Walton. *hen*.—1, J. F. Walton. 2, Furness & Sudall.

**HOUDANS.**—1, W. Whitworth, Jun. 2, W. Martin. 3, E. T. Herdman. *Game-Cock* and *La Flèche*.—1 and Cup, Miss L. Stephenson (La Flèche). 2, W. H. Crabtree (Crève-Cœur). 3, E. Walton. *he*, F. Watson, Jun. (Crève-Cœur). *c*, W. B. Maxwell (La Flèche). A. Carewell (Crève-Cœur).

**HAMBURGERS.**—Gold-spangled.—1, M. Beldon. 2, G. & J. Duckworth. 3 and *he*, J. Crawford. *c*, Dr. Stoney. *Silver-spangled*.—1, H. Beldon. 2, Ashton and Booth. 3, F. C. M. Smith. *c*, J. Ross.

**HAMBURGERS.**—Gold-pencilled.—1 and Cup, H. Beldon. 2, G. & J. Duckworth. 3, J. Barlow. *Silver-pencilled*.—1, H. Beldon.

**POLISH.**—1, H. Beldon. 2, J. H. Miller. 3, Miss De Courcy Drevier.

**MALAYS.**—1, 2, and 3, H. J. M'Brade. *he*, J. K. Miller. *c*, J. MacMillan.

**BANTAMS.**—Game.—1, B. Walton. 2, W. Shenton. 3, W. Martin. *c*, J. N. E.

*Pim.* Black.—1 and Cup, J. Walker. 2 and 3, R. H. Ashton. *he*, E. Walton. *he*, W. Shaw. *Any other variety*.—1 and 2, A. Robertson. 3, Miss Donnelly. *c*, J. N. E. Pim.

**ANY OTHER DISTINCT VARIETY.**—1, J. Ross (Black Hamburg). 2, H. Beldon. 3, P. Smith (Guinea Fowl). *c*, J. Girdwood (White Guinea Fowl). **SELLING CLASS.**—Cock.—1, J. Ross (Black Hamburg). 2, J. Ferguson (Black Red Game). 3, E. Macalmon (Partridge Cockerin). *he*, M. Mahony (Cockerin). F. Robertson. Furness & Sudall, W. H. Crabtree, W. Whitworth, Jun. *c*, E. T. Herdman. *he*, M. Macalmon (Partridge Cockerin and Dark Brahma). J. Arnold (Dark Brahma).

**SELLING CLASS.**—Hens or Pullets.—1, M. Mahony (Cockerin). 2, Furness and Sudall. 3, E. P. Williams (Dorkings). *he*, F. Robertson (Buff Cockerin). J. K. Miller. *he*, E. T. Herdman. F. W. Zurborst, W. B. Maxwell (Dark Brahma). *c*, W. G. Mulligan (Brahmas and Dorkings). E. T. Herdman. E. Macalmon (Partridge Cockerin). H. J. M'Brade (Buff Cockerin). W. Whitworth, Jun. *c*, W. H. Crabtree.

**DUCKS.**—*Rouen*.—1 and 2, W. G. Mulligan. 3, J. Walker. *he*, J. Girdwood. *he*, J. Girdwood. W. G. Mulligan. W. B. Maxwell. F. Robertson. J. K. Miller. *c*, W. G. Mulligan. *Aylesbury*.—2, F. Robertson. 3, W. Martin. J. Walker. *Any other variety*.—1 and 2, W. Martin. 3, J. Walker. *he*, E. P. Williams (Ruddy Shells). *he*, G. Jamieson (Black East Indians). E. P. Williams (Shells). W. Lindsay (Mandarins).

**TURKEYS.**—1, J. Walker. 2, F. Watson, Jun. 3, Rev. N. J. Ridley. *he*, J. G. Boyd.

### PIGEONS—MEMBERS' ONLY.

**POUTERS.**—Young Cuck.—1 and 2, J. Walker. Young *hen*.—1, Mrs. Ladd. 2, 3, and *c*, J. Wallace.

**CARRIERS.**—Black or Dun.—Young Cuck or *hen*.—1, 2, 3, and *he*, J. Montgomery.

**BARRAS.**—Young Cuck or *hen*.—1, 2, and 3, W. A. P. Montgomery.

### OPEN COMPETITION.

**POUTERS.**—Blue or Black-pied.—Cock.—1, Cup, and *he*, Rev. W. C. Bullen. 2 and *c*, R. Fulton. *he*, J. Wallace. *hen*.—1 and 2, Rev. W. C. Bullen. 3 and *he*, R. Fulton.

**POUTERS.**—Red or Yellow-pied.—Cock.—1 and 2, R. Fulton. 3, J. H. Hutchinson. *he*, J. Wallace. *hen*.—1 and 2, Rev. W. C. Bullen. 3 and *c*, R. Fulton.

**POUTERS.**—White.—Cock.—1, W. A. P. Montgomery. 2, J. H. Hutchinson. 3, Mrs. Ladd. *he*, R. Fulton. *c*, F. W. Zurborst, J. Wallace. *hen*.—1 and Cup, R. Fulton. 2, Rev. W. C. Bullen. 3, F. W. Zurborst. *he*, J. H. Hutchinson. F. W. Zurborst, Mrs. Ladd. *c*, Mrs. Ladd.

**CARRIERS.**—Black.—Cock.—1, *he*, and *c*, J. Montgomery. 2 and 3, R. Fulton. *hen*.—1, R. Fulton. 2 and *he*, J. Montgomery. 3, W. Lindsay. *he*, J. Montgomery (3), R. Fulton.

**CARRIERS.**—Dun.—Cock.—1, Cup, and 2, J. Montgomery. 3, R. Fulton. *hen*.—1, Cup, and 2, R. Fulton. 3, *he*, and *c*, J. Montgomery.

**TUMBLERS.**—Short-faced almond.—Cock.—1, Cup, and 2, R. Fulton. 3 and *he*, M. Stuart. *hen*.—1, 2, and 3, M. Stuart. 2 and *he*, R. Fulton.

**TUMBLERS.**—Short-faced any other colour.—Cock.—1, Cup, 2, and *c*, M. Stuart. 3 and *he*, R. Fulton. *hen*.—1, 2, and 3, M. Stuart. *he*, W. A. P. Montgomery. *c*, R. Fulton.

**WATERS.**—Cock.—1, Cup, 2, and 3, W. A. P. Montgomery. *he*, R. Fulton. *c*, F. W. Ewart. *hen*.—1, 2, 3, and *he*, W. A. P. Montgomery. *c*, F. W. Ewart. R. Fulton.

**JACOBINS.**—Red.—Cock or *hen*.—1, 2, and *he*, J. Frame. 3, E. A. Seale. *Yellow.*—Cock or *hen*.—1 and Cup, J. Pyper. 2, J. Frame. 3, E. A. Seale. *he*, J. H. Hutchinson. *Black.*—Cock or *hen*.—1, 2, 3, and *he*, J. Frame. *Any other colour.*—Cock or *hen*.—1, J. Galt. 2 and 3, J. Frame. *he*, J. Galt. J. Frame (3), A. J. Anderson. *he*, J. M. Royce. J. Frame (3), A. J. Anderson.

**JACOBINS.**—Black.—Cock or *hen*.—1, 2, and *c*, J. M. Hutchinson. 3 and *he*, K. Fulton. *Any other colour.*—Cock or *hen*.—1, Cup, 2, and *he*, J. H. Hutchinson. 3, R. Fulton.

**FANTAILS.**—White.—Cock or *hen*.—1 and 2, J. Walker. 3, J. Waters. *he*, J. F. Lovelidge. *Any other colour.*—Cock or *hen*.—1 and 2, E. A. Seale. 3, A. Robertson.

**WATERS.**—English.—Cock or *hen*.—1, R. H. Unsworth. 2, R. Woods. 3, J. Galt. *he*, F. W. Ewart. *c*, W. G. Henry.

**TUMBLERS.**—Red or Yellow.—Cock or *hen*.—1, E. A. Seale. 2, W. G. Henry. *c*, E. A. Seale. A. & R. Hutchinson. R. Fulton. *Any other colour.*—Cock or *hen*.—1 and Cup, R. Woods. 2, R. Fulton. 3, E. A. Seale. *he*, E. A. Seale. A. J. Anderson. *c*, W. S. M. Gibbin. F. Waring.

**NUNS.**—Cock or *hen*.—1 and 2, E. A. Seale. 3, T. Reid. *Dragoons.*—Black or Silver.—Cock or *hen*.—1 and 2, W. Smith. 3 and *he*, R. Woods. *he*, E. H. Unsworth. *Any other colour.*—Cock or *hen*.—1, Cup, 2, and 3, R. Woods. *he*, F. Robertson.

**ANTWERPS.**—Short-faced.—Cock or *hen*.—1 and 2, C. Gamon. *Long-faced.*—Cock or *hen*.—1 and 2, C. Gamon. 3, F. Robertson.

**FLYING TUMBLERS.**—Beards.—Cock or *hen*.—1, R. H. Unsworth. 2 and 3, T. Reid. *he*, F. Waring. T. Reid. R. Fulton. *Sails.*—Cock or *hen*.—1, T. Reid. 2 and 3, E. H. Unsworth. *he*, J. Waters. F. Robertson. *Any other colour.*—1, J. Wilson. 2, J. H. Unsworth. 3, F. Robertson. *he*, J. Waters.

**ANY OTHER VARIETY.**—Cock or *hen*.—1, W. Brown (White African). 2, E. A. Seale (Red Marple). 3, J. Waters. J. Wallace (Lace Fan) *he*, E. A. Seale (Fire Pigeon). R. Fulton (Turbiten). *he*, F. W. Zurborst. J. Wallace (Loe). *c*, J. Waters.

**SELLING CLASS.**—Cock or *hen*.—1, W. A. P. Montgomery. 2 and 3, J. M'Alpin (Carrier and Barb). *he*, F. W. Zurborst. J. Piper (Jacobin). J. M'Alpin (Jacobin). *c*, A. T. Anderson (White African Owl).

**SELLING CLASS.**—Pair.—1 and 2, W. A. P. Montgomery (Barb). 3 and *c*, J. M'Alpin (Jacobins). *he*, W. B. M'Gibbin (White African Owl). J. Pyper (Jacobins). J. M'Alpin (Jacobins).

### CAGE BIRDS.

**NORWICH.**—Clear.—*hen*.—1, W. Stitt. *NORWICH.*—Marked or Variegated.—Cock.—1, Cup, and 2, W. Stitt. *hen*.—1 and 2, W. Stitt.

**BELOANS.**—Yellow.—Cock.—1, Cup, and 2, J. S. Watson. 3 and *he*, J. Elliott. *c*, W. Stitt. *hen*.—1 and 2, W. Gault. 3, W. Stitt.

**BELOANS.**—Buff.—Cock.—1 and 2, J. Elliott. 3, W. Gault. *he* and *c*, W. Stitt. *hen*.—1 and 2, J. S. Watson. 3, W. Gault. *c*, W. Gault.

**SCOTCH.**—Yellow.—Cock.—1 and Cup, J. Tweedie. 2, D. Duncan. 3, T. Scott. *he*, J. Watson. *c*, W. Gault. *hen*.—1, J. Tweedie. 2, D. Duncan. 3, T. Scott. *he*, F. Harrington. J. A. Watson. T. Fox. *c*, J. Elliott. W. J. Thompson.

**SCOTCH.**—Buff.—Cock.—1, J. Pettigrew. 2, T. Scott. 3 and *he*, D. Duncan. *c*, J. Callaghan. *hen*.—1, J. M'Nab. 2, T. Scott. 3, J. Callaghan. *he*, W. Stitt. *c*, M'Burney.

**SCOTCH.**—Fleeced or Pied, Yellow.—Cock.—2, J. Pettigrew. 3, T. Scott. *he*, J. S. Watson. *c*, J. Callaghan. D. Duncan. *hen*.—1, J. Pettigrew. 2, J. A. Pryde. *he*, *c*, W. Callender.

**SCOTCH.**—Fleeced or Pied.—Buff.—Cock.—1, T. Scott. 2, J. Callaghan. 3, W. Callender. *he*, J. A. Pryde. *c*, E. Burns. *hen*.—1, J. Pettigrew. 2, T. Scott. 3, J. Watson. *c*, J. M'Nab.

**CANARIES.**—Any other variety.—1, 2, and 3, W. Stitt (Golden and Silver-spangled Larks).

**MULES.**—Any variety.—1, G. Jamieson. 2 and *c*, W. G. Mulligan. 3, J. Crawford.

**BRITISH SONG BIRD.**—1, E. Burns (Goldfinch). 2, G. Jamieson (Goldfinch). 3, J. M'Burney (Goldfinch).

**SELLING CLASS.**—1, W. Gault. 2, J. M'Alpin. 3, J. M'Burney. *c*, J. M'Nab. J. A. Pryde. J. M'Alpin.

**PARROTS.**—1, A. Crawford. 2, T. Smyth. 3, J. S. Watson. *he*, J. S. Watson. T. Crawford (3), J. Pyper. *c*, J. Stewart.

**JUDGES.**—Poultry: Mr. M. Leno, The Pheasantry, Dunstable;

properly placed; third we would have placed Mr. W. G. Duncan's "Virginia—1, L. T. Spence. 2, A. Crook. 3, A. Smith. 4, A. G. Duncan.

**TURKISHS.**—1 and 2, D. Brook. 3, A. Duncan. 4, L. T. Spence. 5, Coalston.  
**JACOBINS.**—1 and 2, W. & R. Davidson. 3, A. Duncan. 4, L. T. Spence. 5, R. Scott. 6, Fisher. 7, R. Davidson.  
**ANY OTHER VARIETY.**—1, Mrs. A. G. Duncan (Turbit). 2 and 3, R. J. Wilson (Turbit and Barbel). 4, L. T. Spence. 5, R. Frew (Magpie). 6, Crook. 7, R. Coalston (Owl).  
**SKILLING CLASS.**—1 and 2, T. Roger (Pouter). 3 and 4, R. Scott (Pouter). 5, G. Greave (Pouter). 6, L. Johnston (Trumpeter). 7, A. Duncan.  
**SCOTCH FANCY.**—Yellow.—Cook.—1, G. Couper. 2, Mrs. D. Kilgour. 3, R. Crawford. 4, G. Spence. Hen.—1, R. Brown. 2, D. Black. 3, G. Couper. 4, W. Paton.  
**SCOTCH FANCY.**—Buff.—Cook.—1 and 4, Mrs. D. Kilgour. 2, J. Pratt. 3, G. Spence. Hen.—1, W. Hogg. 2, W. Paton. 3, G. Couper. 4, J. Beveridge.  
**FIREBIRD FANCY.**—Yellow.—Cook.—1, W. Hogg. 2, A. Penman. 3, J. Elliot. 4, R. Curran. Hen.—1, D. Black. 2, A. Hutton. 3, G. Spence. 4, W. Paton.  
**FIREBIRD FANCY.**—Buff.—Cook.—1, I. Gillies. 2, W. Hogg. 3, D. Black. 4, J. Elliot. Hen.—1, Mrs. D. Kilgour. 2, R. Downie. 3, W. Hogg. 4, A. Adamson.  
**IRISHMAN FANCY.**—Yellow.—Cook or Hen.—1 and 2, P. Smith. 3 and 4, J. Culbert. Buff.—Cook or Hen.—1 and 2, J. Culbert. 3 and 4, P. Smith.  
**GREEN SIBB.**—Cook or Hen.—1, J. Simpson. 2, R. Curran. 3, C. Cairns. 4, J. Thomson.  
**FOUL-PLUMED.**—1, W. Hogg. 2, J. Thomson. 3, P. Gray, jun. 4, A. Adamson.  
**GOLDEN EYED.**—Buff.—Cook or Hen.—1, 2, and 4, W. Cowan. 3, W. Kirk. Yellow.—Cook or Hen.—1, 2, and 4, J. Cowan. 3, W. Kirk (3).  
**SKILLING CLASS.**—Cook or Hen.—1, J. Paul. 2 and 3, G. Couper. 4, J. Wallace.

### PARAGON POULTRY HOUSE AND RUN.

ALL poultry fanciers are aware of the importance of allowing fowls the benefit of grass runs.

In the "Paragon," the dimensions of the house are as follows:—Length, 4 feet; width, 3 feet 8 inches; height—front, 4 feet 8 inches, back, 3 feet 8 inches. A door at the side provides

at once see the difference betwixt a fine high bred-bird and an underbred coarse one of the same variety. The portrait which "WILTSIRAS RACTOR" seems to value so much will not help him. It certainly does not show the rose and mane—they cannot be separated as "WILTSIRAS RACTOR" seems to think; they are faults united like Siamese twins. If anything can be made of it I think it is the other way, but it is such an impossible sort of Jack that it is scarcely worth noticing. Just see how the lower part of the chain falls over the wings and back, and what wonderful legs and feet it has, and the way it stands upon them is more wonderful still. If superior to the others it is an ingenious way of accounting for it by supposing that the artist understood the bird better than any of the others, but I am of opinion that it is as much underdone as they are. "WILTSIRAS RACTOR" again goes off the line when he says, "Why should he not prefer Dragoons to Carriers?" which he says he does, because the question is between good and bad, or perhaps I should say different forms of the same variety. The Dragoon (?) has a standard of its own. Another departure from the subject is that he again reverts to low-out and clean-thigh birds, a matter of minor importance, and not worth introducing until other points are settled.

"WILTSIRAS RACTOR" insists much in his remarks on kindness and toleration, the drift of which I am at a loss to see. If it is a breach of those virtues to say that the Jacobin of the present day is very much inferior to what it used to be, then I must plead guilty. In this view of it, however, I have the support of several old fanciers, whose opinions are not lightly

Fig. 121.

access to the interior, which is fitted with a sliding door (removable from the outside for the purpose of cleaning), perches to roost ten or twelve fowls, and three full-sized nests, to which is fitted a contrivance peculiar to these houses, which effectually prevents the hens from fouling their nests. In the front of the house is inserted a sliding ventilator.

The dimensions of the runs are—Length, 8 feet; width, 4 feet; height, 3 feet; and they are covered with 2-inch mesh netting. The sides and ends are screwed together, and are thus rendered really firm and stable. The top opens with hinges to allow of fowls being easily placed in or removed from the run.

The "Paragon" houses and runs are constructed so as to combine extreme lightness with strength and durability. It is a fact that a boy can clean the house, and, unaided, move both it and the run into a fresh position, in less than three minutes.

A span-roof can be substituted for the one shown in the drawing at an extra cost of 15s., but it is not recommended, as it tends to increase the weight.

The "Paragon" is that mentioned on page 516 as used at Penhurst.

### THE JACOBIN.

I was much pleased to see "WILTSIRAS RACTOR's" last remarks on English Owls, as they will finish the controversy (now, I dare say, getting tiresome to some), as he there admits all I have been contending for. An English Owl, he says, was at the Crystal Palace "that in Owl points was superior to any African." I am very glad to hear it, as there can now be no reason (there never was a shadow of one) for having classes for both. Had there only been one class English Owls would have been much superior to what they are, and fit to hold their own in one class. So much for the Owl question. The Jacobin question could be as easily disposed of if we had a few birds of the true old type to place beside the so-called Jacobins of the present day. Then I am sure the ninety-nine out of the hundred, which "WILTSIRAS RACTOR" blames me for wishing to convert, would nearly all come over at once and dispose of their birds of the Baldhead type as fast as possible, as everyone with a true fancier's eye can

to be set aside, even though the ninety-nine are against us which they are just because they have not had an opportunity of comparing the two birds together. I am no slavish follower of what has gone before or what is old, merely as such, more than "WILTSIRAS RACTOR" (though age in these matters is no proof of weakness, but rather the contrary); but when I see one of our best fancy Pigeons, of which we have a well-defined standard, evidently drawn up by men of taste, going down hill, I should be unworthy of the name of a fancier if I did not attempt to do something, however little, to arrest its downward course. To talk of different types of Jacobins is simply a delusion. If the desirable properties in a bird are fully laid down no one has a right to depart from this standard and call it by the same name. If "WILTSIRAS RACTOR" will find a name for his rose-and-mane favourites I shall not find fault.—GROVER USS, *Camphill Lodge, Broughty Ferry*.

P.S.—Since writing the above I have seen in the last number of our Journal "WILTSIRAS RACTOR's" "Christmas Greeting," and a very excellent greeting it is. One remark in particular struck me as peculiarly applicable to the Owl and Jacobin discussion. He says, "That advancing by going back is often the truest advance," a remark that all may bear in mind with advantage. "WILTSIRAS RACTOR" always comes right in the end, and this discussion will not be an exception. Kindliness and toleration are very good, but truth must come before all.—G. U.

BARSTOL SHOW.—This commences to-day. The entries are deservedly large—1489 poultry, 599 Pigeons.

### EXTRACTED HONEY VERSUS COMB HONEY.

SOME time ago I urged bee-keepers who intended to exhibit honey at the Crystal Palace Show to go in for small boxes of pure honeycomb containing from 4 to 8 lbs. each, as the most profitable way of managing their apiaries; and I venture to suggest to the Committee of Management of the Apian Society that there be a distinct prize or prizes offered for the largest number of such boxes and the best filled in the schedule of next

year's prizes. I am certain, not only that a very large quantity of beautiful honeycomb could be harvested in such small boxes, but that a ready market then and there—and if not there, elsewhere—could be formed which would largely remunerate our bee-keepers, paying them far better than by means of liquid honey, as the former fetches at least three times the price of the latter. Our bee shows will fail in great measure of their object if one result therefrom be not the opening of a market for the sale of honey. Of what use is it to encourage the keeping of bees with no demand for honey, or if the price for it is so low as to make it worth nobody's while to collect it? Already in some parts of the country run honey is dear at 5d. or 6d. per lb., whereas it would rise to 1s. 6d. or 2s. 6d. if it were only guaranteed to be pure honey in the comb, purchasable in moderate quantities, and accessible to the London market.

I see that in America complaints are already made that honey in quantity, such as is extracted in the larger apiaries by the help of the "slinger," is so cheap as to be a drug in the market, so that one begins to hear there of "stopping the production of extracted honey;" and the advice is given by a writer in the current number of the "Bee-keeper's Magazine" that "to command the best prices and most ready sale honey should be stored in glass boxes capable of holding from 2 to 3 lbs. each," I should say from 3 to 5 lbs. each. Another bee-keeper referred to in the same magazine says that, in his opinion, "it is suicidal to secure surplus honey in liquid form, and that if bee-keepers were wise they would make the production of honey in small glass boxes their especial aim in the future." There is sound sense in all this. The only difficulty lies in finding the market. But methinks if we only had the honeycomb in saleable quantities the market would very speedily be found. At present grocers and other tradesmen object to buy or sell honey for no other reason than that it does not come to them in saleable form. They can sell it fast enough, as I have proved in former years; but as it comes to them in large supers or broken up in pans, and necessitates a good deal of manipulation in the division, it is found so disagreeable to manage, from the stickiness of the honey and the quantity of wasps and bees which it attracts to their shops, that very few grocers who have once been induced to admit it will give it a second year's trial. Thus our market for our best and most highly valued honey is closed against us almost everywhere. Only in large cities, as London, where bees and wasps are practically unknown, and where honey is sold in larger quantities off-hand, is such sale possible. But only let the honeycomb be offered for sale in compact little boxes which require no manipulation by the "middleman," but will pass directly into the hands of the consumer, and every grocer will be ready enough to buy of the producer.

But how about those little boxes and their management? There surely can be no difficulty here. Instead of putting one super over a hive let four or six be used at one time, each with its separate communication with the hive below, and all protected and kept warm by a large box fitting over them like a sort of square cap. In good seasons as fast as these are filled they can be taken away, and empty boxes put in their place. A collateral advantage connected with the use of these small supers is this, that whereas in one large super the queen will often spoil the whole of it by occupying a large proportion of the combs with brood, she will rarely be found to have spoiled more than one of the small boxes; because, owing to the difficulty she experiences in passing from one to the other she will mostly remain in the first she happens to visit, or at least sufficiently long to enable the bees to pre-occupy the combs in the others with honey before she makes her appearance there. In America, where honey seems to abound in far larger quantities than with us, they sometimes have in use attached to one hive from one to two dozen or more of very small boxes, just big enough to hold 2 or 3 lbs. of honeycomb. These would probably not answer in Great Britain except at rare intervals; but there can be no difficulty or doubt of success where four are used, as advocated here. Now, such boxes would hold from 4 to 6 or 8 lbs. of honeycomb, according to their size, which would be regulated by the size of the hive or colony over which they were placed.

As these little boxes would be protected by a substantial covering, they need not be made of wood thicker than half an inch, with one or two small pieces of glass let into their sides. When sold an arrangement might be made for their repurchase when empty if returned in good order.—B. & W.

### EXPERIMENTS WITH HONEY.

I PUT up six one-pound cans of beautiful linden honey, being careful to make it one homogeneous mass by stirring. It was thrown from the combs by an extractor on July 20th, and put into cans on August 1st. The cans were placed respectively as follows: One in a dark dry cellar, one each under shades of red, yellow, green and blue glass, and the sixth can in full light. On November 8th the honey in the cellar candied to a white. November 22nd to December 10th, honey under coloured shades

candied, first in the red, next in the yellow, green and blue; while the honey in full light remained transparent until January, when it soon candied after exposure to intensely cold weather. From my experience an equal temperature would preserve certain kinds of honey, while other kinds would candy under almost any circumstances. I think that candied honey, instead of being looked upon with disfavour, should be recognised as evidently pure. I hope, however, that the above experiments will lead others to follow up the light theory with beneficial results.—(*Scientific American*.)

### THE WONDERS OF A BEE HIVE.—No. 1.

BEE LIFE is full of marvels and mysteries. The longer an observing person lives amongst bees, and the more attentively he studies their history, the more readily will he admit his inability to reach the depths and summits of the wonders of a bee hive. After years of patient investigation and close observation the most successful and advanced students of bee-life can do no more than touch the skirts of the garment. Beyond the sphere or limits of man's power or penetration, there is a world of mysteries in a bee hive. An attempt to produce an exhaustive treatise on the subject would be sheer vanity or something worse. In a few letters which I intend to write for the readers of this journal, it is not my intention to go over untrdden ground, but simply to notice and indicate some interesting features of bee history somewhat familiar to advanced apirians. During the summer months, while bees were busy at work, the pages of the *Journal of Horticulture* gave much information on practical management; and now when bees are quiet at home let us have a little gossip about queens and drones, their works and ways, their haunts and homes.

If we begin with queens we shall find marvels great enough connected with their formation and production, their birth, their life, their end. For what can be more wonderful than the fact that queens are often reared from eggs which might produce working bees, and reared to perfection as queens from eggs in fourteen days, or seven days less time than is required to rear working bees from the same kind of eggs? Fancy a great number of eggs laid every day in a hive, set in common cells, meant to be nursed there and hatched perfect working bees in twenty-one days—bees possessing instincts and mechanical powers for field labour and household work, also for nursing their young, defending their homes and possessions, and for burying their dead. Well, if the queen of this hive die or be removed the bees take a few of the eggs from worker cells, place them in royal cells, or otherwise build royal cells around them, and make or convert them into perfect queen bees in seven days less time than working bees are in their cradle cells. What a marvellous transformation! Queens are larger, more beautiful (shall I say more perfect?) than working bees. The form and colour of their bodies, their instincts and traits of characters, are quite different too. Bees live nine months only; queens live four years. The immediate cause of such transformation and difference appears to be in a substance which the bees place in royal cells as food. What it is, where it is obtained, or how manufactured no one can tell.

There is perhaps too much taken for established proof in discussing this question. It is believed by most apirians and bee historians that special treatment is required in the royal cells only, and hence perfect queens. If inquiring minds seek evidence on this point they cannot find it. If any courageous and sturdy teacher were to stand out and assert that the special treatment is not given to royal infants but to common plebeians, and is applied in the way of stint and constraint to eggs and young in worker cells, who could contradict or disprove his words? That working bees are imperfect females, and queens perfect ones, nobody questions. But which is normal and which is abnormal? Is it not natural to believe that bees, like other races, produce perfect males and females without special treatment? Is it not as natural to believe that the special treatment dwarfs and cripples workers as it is that it develops the reproductive organs of queens? What a mystery surrounds this subject! How little do we know! What a field there is for future investigation! The anomaly of having perfect and imperfect females produced and producible from the same eggs puts difficulties in the way of research however honestly and laboriously pursued. All the provisional arrangements and economy of bees are natural and wonderfully perfect, though many of them are concealed from the ken of mortals.—A. PATTISON.

### HARVESTING HONEY HIVES.—No. 8.

(Continued from page 522.)

BEES, hives, labour, and materials of every description are dearer in America than here, and if it pays there to raise honey at 7d. per lb., as it evidently does, we certainly can do it here; but to do it we must advance with the times and bring into use frame hives and the extractor. With regard to the

former there are two constant objections urged—cost and damp. I do not hesitate to say both are bugbears. A substantial frame hive with floor board, super chamber, and cover all complete, which will last out two or three straw hives, may be made by any man who can use a saw and drive a nail for 6s. In the second edition of my manual of bee-keeping I have shown how this can be done, giving drawings of every piece of wood. Even this 6s. can be considerably reduced by the use of old packing cases, &c., for material. If the bees are now in straw hives they may be transferred, combs and all, to the improved dwelling in an hour's work, and the labours of the bees will soon pay for their better lodging. As an example of how much under control the bees and their belongings are in such hives, I may say that in one hour and a half, at the end of October, I made a thorough examination of eight hives, took out, examined, and returned all the combs (eighty-eight), saw the queen in every hive, and satisfied myself of their good condition for wintering, and although I worked with naked hands I do not think I was stung at all.

I do not keep my bees for pecuniary profit but for the boundless pleasure they afford me to watch their wondrous doings. Rarely does a day pass when weather permits that I do not investigate the interior of some of the hives, which I should be wholly unable to do if they were on the old system. The other day, when visiting a friend who had this summer adopted a frame hive, I naturally examined the condition of the bees which, although numerous, I soon pronounced to be broodless and queenless. By mere chance I had a deposed queen in my pocket, which I at once placed among the bees. The poor queen was too feeble to stand, but the bees seeming to grasp at the chance of their salvation crowded round, licked and fed her so that in ten minutes I had the satisfaction to see her happy at home with the well-known circle of workers round her. The acceptance of a queen on such an off-hand introduction was scarcely to be hoped for, but it was her only chance, like a desperate operation, and it was successful. The life of the colony is probably saved. Had they been in a skep their death was certain, for their condition would not have been discovered. But I am wandering from my subject, so to return. When the contents of a straw skep are broken up for the honey there is generally a quantity of brood, which too commonly is squeezed with the honey. But even suppose this is avoided, it is rarely that it escapes destruction, permitting which is about as wise as a gardener burning the seed which he will require in the spring, for this brood would produce the very bees which would live over the winter. Every young bee is worth many old bees in autumn. In a vigorous prosperous stock every bee found therein in April will have been born since September, and as in the early spring stocks are never too strong, imagine the loss to them if their autumn brood be destroyed. Where the combs are in frames we are able to select those containing honey alone, leaving the brood and bees to perform their allotted task in nature.

The question of wooden hives being damp I may dismiss by saying it is an evil I am not troubled with, and by attention to proper ventilation I am sure it need not be feared. Doubtless many stocks have perished from that cause, but so have they in straw hives, and they will again wherever negligence is allowed.

I have before me now "Gleanings in Bee Culture," an American magazine. It is, I believe, an honestly conducted serial. It contains many scores of returns from its subscribers. I open it at random, and without selection I find the following:—"Number of stocks in spring '86, three of which were queenless. Number of stocks to date, 40; surplus honey, mostly in 5 lb. boxes, 1541 lbs." "By use of extractor and plenty of empty combs got from eight stocks three new swarms and 1026 lbs. of honey." "I took out 600 lbs. and am confident I should not have got 60 lbs. of box honey." "Had fifty hives, and have sold 439 dollars worth, and can spare 100 dollars more honey." "Have 500 lbs. comb honey, and 135 gallons extracted from forty-four stocks." "Commenced with forty-two stocks, increased to seventy-five, taken 150 lbs. box honey, 8800 lbs. extracted." "The hives I extracted yielded on an average nearly 100 lbs. From three hives for box honey it is not worth weighing; some of the extracted ones gave me 160 lbs., one 70 lbs. in one week." "Five hives 1842 lbs." These statements are all signed with names and addresses, and are, I have no doubt, in the main true. The yield of honey through the extractor is more certain than in supers. In the latter the bees somehow will not work, charm we e'er so well; if their combs are emptied they must. Figures of American extractors with explanatory notes were published on page 479 and 480.—JOHN HUNTER, *Eaton Rise, Basing.*

**BEES-CULTURE IN CALIFORNIA.**—The *Los Angeles Herald* says bee-culture is spreading rapidly in California. At the present rate of increase it is estimated that there will be in four years one million stands of bees in that and the two adjoining counties, which will produce annually 100,000,000 lbs. of honey, worth

\$20,000,000, which is more than the value of the sugar and molasses crop of Louisiana, Texas, and Florida combined.

## OUR LETTER BOX.

**TRAL PITIONED NOT DISQUALIFIED (Boco).**—Nearly, if not all, the wild fowls exhibited are pitioned, and in our opinion it should be so. It is the only condition on which they can be kept. However tame they may be, there remains always a taint of the old wild blood, and when the "whew" of the birds in the air is heard every head goes up, and if they still possess the power of flight they join them. The knowledge that they cannot fly tends to reconcile them to captivity. They are not disgraced by it, and when swimming peacefully it cannot be seen whether they are full-grown or not.

**FLYING TUMBLERS AND SHORT-FACED TUMBLERS (B. J.).**—The former, as their name implies, are strong fliers; the latter are little delicate birds with no strength of wing, and only fit to be kept in a small enclosed place. Some of them can barely fly to the top of a wall. We advise you to begin with Flying Tumblers, and after you have procured a stock have another place for Short-faces, and the larger sort will do as admirable nurses and feeders for the Short-faces, who cannot bring up their own young. For further information read diligently Brent's "Pigeon Book" which you have received from us.

**WOLSTENHOLME'S PICTURES (T. S., Gadden, Baltimore).**—"The picture of the chestnut horses I painted was the property of Messrs. Truman and Hanbury. I painted all the brew-horses of London and engraved them. I also painted and engraved the print of Pigeons which I have now by me, and shall be most happy to supply any person with as many as they will give me an order for, or paint a picture of Pigeons for any gentleman who will give me a commission. I have three pictures in hand of horses, very fine creatures, and a wonderfully large Newfoundland dog.—D. WOLSTENHOLME."

**PRICKLY COMFERT (G. M.).**—The land is rich loam on stone brash. Cows like it and sheep also. I advise you to grow lucerne instead of it. You will have of lucerne three or four "cuts" per annum. Sow it in drills a foot wide, and keep the ground free from weeds.—W. F. RADOLFF.

## METEOROLOGICAL OBSERVATIONS.

GARDEN SQUARE, LONDON.

Lat. 51° 32' 40" N.; Long. 0° 8' 0" W.; Altitude, 111 feet.

DATE.	9 A.M.				IN THE DAY.						Rain.
1876.	Barom. at sea and Sea Level.	Hygrometer.		Direction of Wind.	Temp. of Soil at ft.	Shade Temperature.		Radiation Temperature.			
Dec.		Dry.	Wet.			Max.	Min.	In sun.	On grass		
We. 28	Inches.	deg.	deg.	S.S.W.	deg.	deg.	deg.	deg.	deg.	In.	
Th. 29	30.050	52.1	51.3	S.E.W.	42.5	44.8	41.3	71.3	10.3	—	
Fri. 30	30.103	42.8	41.0	S.E.W.	42.7	43.7	41.3	71.4	10.4	—	
Sat. 31	30.223	44.8	43.0	W.S.W.	41.6	51.6	41.9	61.8	23.0	—	
Sun. 32	30.269	49.8	49.8	W.	41.5	50.0	42.4	70.5	24.1	—	
Mon. 27	30.419	48.8	43.6	W.	40.5	47.4	47.4	63.9	24.4	—	
Tu. 28	30.419	42.8	42.7	S.W.	42.1	44.7	41.6	47.1	29.9	—	
W. 29	30.544	44.3	41.9	W.	43.0	46.0	41.9	50.0	40.5	—	
Means	30.256	44.8	42.6		41.9	49.5	40.6	60.9	27.4	—	

## REMARKS.

22nd.—Very windy in the night, with rain before 9 A.M. Fine day and star-light evening.

23rd.—Very fine morning, and a beautiful day throughout.

24th.—Overcast at intervals, but rainless, and frequently very fine.

25th.—Rather thick early, but a fine day with bright sun, especially in the forenoon.

26th.—Damp and foggy all day, and evening.

27th.—Dark and dull; spots of rain at intervals, but no measurable amount.

28th.—Overcast throughout; very calm, and fair.

A fine week for the season, scarcely any frost; no measurable rain, little wind, and very high barometer.—G. J. SYMONS.

## COVENT GARDEN MARKET.—DECEMBER 29.

TRADE very quiet since Christmas; no sales effected.

## FRUIT.

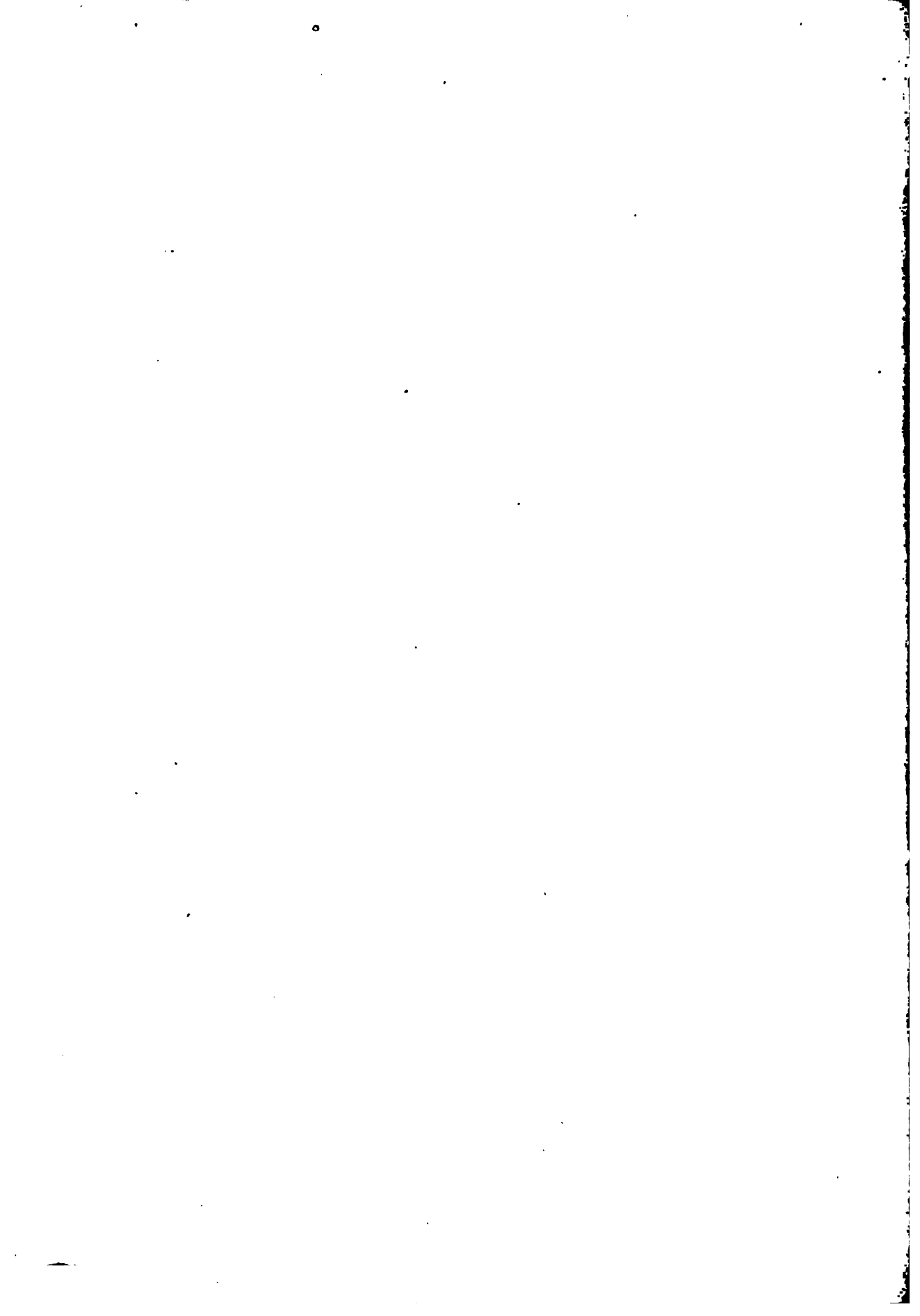
	s.	d.	s.	d.		s.	d.	s.	d.
Apples.....	1	0	to	0	Peaches.....	0	0	to	0
Oranges.....	12	0	20	0	Pears, kitchen.....	0	0	0	0
Figs.....	0	0	0	0	dessert.....	0	0	0	0
Pineapples.....	1	0	0	0	Pine Apples.....	1	0	0	0
Grapes, hothouse.....	1	0	0	0	Strawberries.....	1	0	0	0
Lemons.....	1	0	0	0	Walnuts.....	1	0	0	0
Oranges.....	1	0	0	0	ditto.....	1	0	0	0

## VEGETABLES.

	s.	d.	s.	d.		s.	d.	s.	d.
Artichokes.....	0	0	0	0	Lettuces.....	0	0	0	0
Asparagus.....	1	0	0	0	French Cabbage.....	1	0	0	0
French.....	1	0	0	0	Mushrooms.....	0	0	0	0
Beans, Kidney.....	1	0	0	0	Mustard & Cress.....	0	0	0	0
Beet, Red.....	1	0	0	0	Onions.....	0	0	0	0
Broccoli.....	1	0	0	0	Pickling.....	0	0	0	0
Brussels Sprouts.....	1	0	0	0	Parley.....	0	0	0	0
Cabbage.....	1	0	0	0	Paranips.....	0	0	0	0
Carrots.....	1	0	0	0	Pears.....	0	0	0	0
Capsicums.....	1	0	0	0	Potatoes.....	0	0	0	0
Cauliflower.....	1	0	0	0	Kidney.....	0	0	0	0
Celery.....	1	0	0	0	Radishes.....	0	0	0	0
Coleworts.....	1	0	0	0	Rhubarb.....	0	0	0	0
Cucumbers.....	1	0	0	0	Salsify.....	0	0	0	0
Endive.....	1	0	0	0	Scorzonera.....	1	0	0	0
Fennel.....	1	0	0	0	Seakale.....	1	0	0	0
Garlic.....	1	0	0	0	Shallots.....	1	0	0	0
Herbs.....	1	0	0	0	Spinach.....	1	0	0	0
Horseradish.....	1	0	0	0	Tomatoes.....	1	0	0	0
Leeks.....	1	0	0	0	Turnips.....	1	0	0	0
					Vegetable Marrows.....	1	0	0	0









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